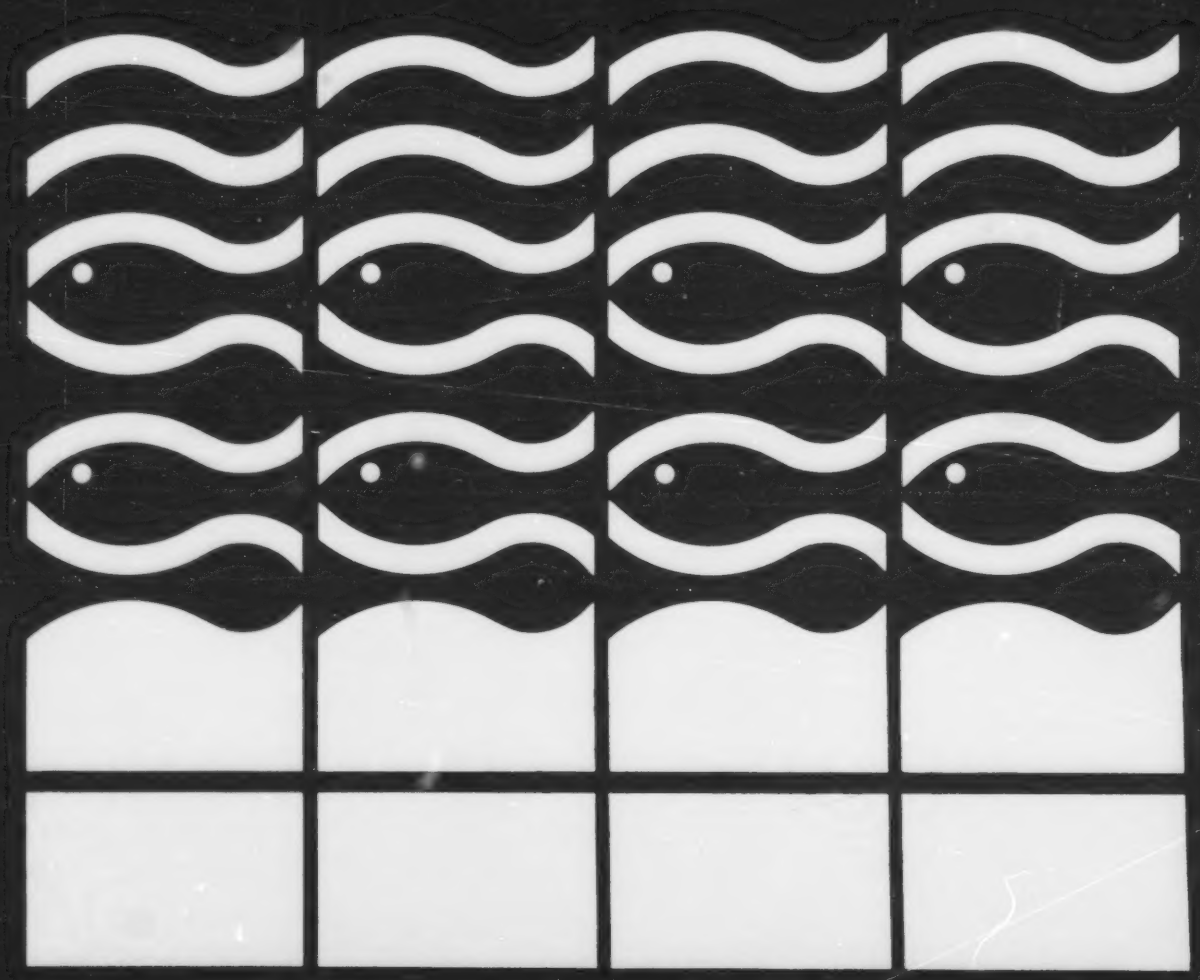
Fishing Industry Advisory Board

# Special Report



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# Seminar: Marketing of Fish and Fish Products in Europe

Presented by:

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Sponsored by:

Fishing Industry Advisory Board
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## FOREWORD

In response to the often stated need for market diversification, the Fishing Industry Advisory Board arranged for Mr. Eric Elston to hold a seminar in March, 1980 in St. John's for Newfoundland fish producers on the Marketing of Fish and Fish Products in Europe. In view of the interest expressed by the participants, Mr. Elston's presentation was recorded and is reproduced in this report. For brevity and clarity, the Fishing Industry Advisory Board has edited the transcript in a minor degree.

Printed matter and other samples provided and referred to by Mr. Elston have been included as appendices.

Eric Elston, who retired in December as editor of the European edition of Erkins Seafood Letter, was recently included on the Queen's Honours List and awarded the O.B.E. for his life-long contribution to the fishing industry. After his retirement from a senior executive position with Bird's Eye Foods Ltd. he maintains his close association with the industry as a consultant. Enquiries concerning this presentation or related matters can be made by contacting Mr. Elston at the following address:

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It is hoped that this report will be useful to the members of the fishing industry and other interested readers.

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MARKETING OF FISH AND FISH PRODUCTS IN EUROPE

In a recent edition of Fishing News International it was reported, in bold headlines, that Canada can double her exports, but it doesn't say anything in there as to how she might do this and what problems she might incur on the way. For this seminar, it is important, therefore, to concentrate on some of the mechanics of this operation. You have to know the way in which you should go and what subjects and matters you should concentrate on if you're proposing to enter the European market.

Overview:

The projected cod TAC for Canada in 1985 is expected to be something like 680,000 tons. That's a staggering amount of fish and it makes Europe sort of vibrate at the very thought of that quantity of fish coming onto the world market.

Although great quantities of flatfish, redfish, Atlantic pollock, squid, herring, etc. are caught off your shores, cod is your predominant species and the one most likely to be available for export. As you know, cod can be exported in various forms. First of all, if we look at the frozen market there's the fillet form. Therefore, it is important to understand the different presentations which are required by various European countries. The U.K. usually want their frozen fillets with skin-on. It is served on the plate skin-on. It is interleaved with 90% bone-in and about 10% boneless. Cod is presently entering the U.K. market in substantial quantities from Norway and Iceland. These two countries are your immediate competitors and they have advantages over you in location, transport costs, in quality and possibly in price.

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The other European markets generally require a skinless product, again interleaved, sometimes bone-in and sometimes boneless. But the main thing to remember when dealing with, say Germany, France or Italy is that they will buy and serve their fillets in the skinless form and that they take them interleaved, mostly bone-in, but it varies from country to country.

Both in the U.K. and in Europe, you will also have a certain amount of sales in the I.Q.F. form, but you may have problems with transport across the Atlantic because they are more fragile.

There isn't much hope for the marketing of fresh fish in Europe from North America because the air freighting costs are so enormously high. You have got to pay for air freighting of your ice as well as your packaging. I don't see this working economically, even for the top quality stuff getting the highest prices on the U.K. market. However, some thought should be given to the new scientific method of utilizing containers with chill temperatures and having an inert $CO^2$ atmosphere. This method is supposed to keep your product fresh for a week or so.

Blocks are another form in which fish is marketed in Europe. Right now a very serious situation, in regards to the fishery, is happening in the U.K. due to the difficulties and problems associated with jurisdiction of each country's 200 mile limit. Some ports are suffering badly. As a wet fish port, Hull is dead. There are no landings whatsoever. Because of this enormous change in the pattern, major British producers, like Birds Eye and Findus, have changed their policy and are moving towards the purchase of imported blocks and away from the purchase of wet fish which they have previously converted into blocks. It is quite significant because it is a positive trend and seems likely to continue. So an opportunity exists here. You should remember that it is not all cod, other species and

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forms are being used in the U.K. and the rest of Europe, especially Atlantic pollock and hake.

Cod in the U.K. is the predominant desired species and commands a premium price. Other species like Atlantic pollock, hake and minced cod are 60-65% of the value of cod fillets. They are processed and offered to the consumer either in a second brand manner or private label pack. In the supermarkets, these packs are undercutting the major brands like Birds Eye, Findus, Ross. So you have a two level market system in the U.K.

Germany which is probably the next biggest consumer of fish in Europe prefer coley, Atlantic pollock and hake, much less cod. I am referring here to the converted product into consumer fingers or portions or sticks.

Another form in which fish is marketed in Europe is salted and dried fish, cod in particular, into the Southern European countries. All the Mediterranean countries, particularly the southern end of them, like Spain, Italy, Greece, North and West African countries (esp. Nigeria) consume a considerable quantity of salted and dried fish.

Only your top quality fish should be frozen and all other qualities provided the size of the fillet is good, can go for salting and drying. But the sizes got to be reasonable.

Marketing Problems In Europe

As I mentioned, opportunities for Canadian fish products do exist in Europe, but it is not there for the taking. There are a lot of problems and matters which have to be cared for. First of all, you should look at your competition in the marketplace. Your major competition would come from Norway, Denmark, Iceland, Greenland and in the case of hake, all the South American fishing nations - Argentina, Peru, Chile and in particular Uruguay which is

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now emerging. Uruguay is presently investing substantially in modern plants with the best technology and is likely, therefore, to produce a product far superior than Argentina, who from our experience in Europe are totally inconsistent and very unreliable producers. However, they are competitors nevertheless of very substantial quantities in the second level market.

Nations, like Norway, Denmark, Iceland and Greenland are all top quality producers. Of course, they have their problems with quantity. Here, Newfoundland has an opportunity of getting into this market, if and when trade restrictions of the major European nations are lifted.

One problem you should consider in the long run is the revival of the European fishery scene. Once they have their common fishery policies worked out, they would then be in a better situation to have better management of their resources. Another problem is the increase in catching power of the U.S., which may affect your market as exporters. If they do start to produce and convert their own fish, it could have a drastic effect upon the total movement of stocks around both sides of the Atlantic. (Participant's note: expansion should come off Alaska, not on the East Coast and it is highly unlikely that this fishery would be able to compete economically with the traditional species on the East Coast).

Some immediate problems I see in relation to your exports to Europe is the reputation of Canadian quality, in particular, cod blocks as it relates to freshness and texture. So if you are going to stand a hope of entering the European market in any substantial tonnages, you have got to improve your quality.

Another immediate problem you have is the weakness of the dollar. The Scandinavian countries, in particular, are selling strongly into other countries because they find

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the U.S. dollar, let alone the Canadian dollar, so weak that it's unattractive for them to ship across the Atlantic into the American continent. Therefore their preferring to sell into Europe means that in the immediate future you will have a bigger problem to get your products into Europe. That is one reason, I think, we have seen the gradual growth of the basic block in Europe.

Freight rate increases are another problem. There's not much we can say about that. It is just one of those wretched things we have to live with. But of course, it is significant because your costs are high in freight.

Another immediate problem you have of marketing in Europe is that of tariffs. You have a substantial tariff rate to contend with in Europe, which you don't have in in the U.S.. Basic tariff for skin-on, bone-in fillets and for blocks into the U.K. is 15%, while for prepared products it is 25%. However, the EEC made a concession by reducing tariff to 9% in July 1978 for fish blocks which were imported for further manufacture. This rate applies to cod, pollock, haddock and hake blocks and not to other species which are also what I would call cod substitutes or cod alternatives like grenadier or blue whiting block. If you bring those in, you are still paying 15%. In regards to reduction of tariff rates in the forseeable future it is very difficult to say. It is a totally political matter. It has nothing to do with fishing whatsoever in my opinion. I don't know which side is to blame. Living on the other side of the Atlantic, I tend to blame Canada for this because the Western European nations have been wanting to obtain reasonable fishing rights in your waters for the last few years and have been consistently refused. While, we see the Eastern Block countries being treated much more favourably. So why should the EEC consider reducing tariffs on imports of Canadian fish into the EEC countries, when Canada won't even allow some of our vessels, which are in dreadful financial straits to fish in their waters.

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Another problem of marketing in Europe is fish in relation to other forms of protein. Poultry price has been steady with very slight increases. Meat prices, of course, have fluctuated, but fish prices have gone up enormously, so that the relationship between fish and meat has narrowed to such an extent that people will generally tend to prefer meat and eat fish just occasionally.

Another immediate problem you may experience are governmental and national restrictions.

Doing Business in Europe

First of all if you are just going to start off and initiate business, you have to ask yourself a few questions. What is my resource? What do I have to offer? Do I want a speculative or a continuing business relationship? That is a very important matter. I would commend to anybody that they endeavour to get a continuing business relationship with a company or companies, but not to be speculative unless you want to take the risks associated with such speculation. In my opinion, gambling in fish is not wise. No matter which method you use, you must have a continuity of supply. That is an absolute prerequisite. Then you have to ask yourself whether you are able and willing to invest further so as to develop upon a base which you have hopefully founded. Then you have to ask yourself in which produce or products you feel you are going to be able to generate profitable exports. To sum all that up you must have a clear idea of what you want to sell, to whom you want to sell it and how you see your growth prospects. As a final point, question yourself to whether or not you should go alone or form a consortium.

So you've now looked at your own situation, what have I got, what do I want to do, and then you got to ask yourself, where can I sell? And there are a number of prelimin-

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aries which I would recommend to you. First of all you would want to have market and import data relating to the foreign countries in which you wish to establish trade. You can usually obtain these from the Ministries in each country. You should also contact your Canadian Commercial Consul in the foreign country and their foreign embassy in Ottawa. From my experience, the former is most likely to be more helpful. He should be able to obtain a list of importers and brokers. He should be able to advise you of the trade associations which exist, i.e., frozen food producers and retailers,

I also strongly recommend to you to actually visit the country. There's no better way of doing business than to present yourself and meet your buyer across the table. Business relationships are much better based on a personal contact basis and not just by letter or by telex. When you visit the market, you can actually go and see for yourself what is happening. You can go into the supermarkets. You can get price lists. You can see which brand is dominant, which brand has most of the space in the frozen food cabinets for instance. You will be able to get a real understanding of who matters, how the product is presented and even the quality.

Next you are going to have to decide from your observations whether you are going to deal with a quality or a price conscious market. It can vary from country to country. If you see a very wide range of prices for apparently the same product, it probably reflects a quality difference. From your very presence in the market, you will get a feel of who is dominant and, therefore, presumably who has the biggest turnover.

If you can visit the trade associations, decide which companies you should visit with a view to generate business,

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which producers, which hotel buying groups. They may not necessarily have to be the largest. Another important point is that retail margins are better than catering margins. If you got the opportunity to sell direct to progressive retail groups, there is far more money to be shared. It would be better in the U.K. to sell direct to Marks and Spencers, than it would be to Birds Eye or Findus. There is more money in that business but not such a big tonnage. You should, also, seek to get information from your prospective buyer regarding the quality he requires, how his business is going, what he sees as the problems, etc.. Some of which you might help to overcome. Thus having done all this, you can now consider what you can offer to meet his requirements or to improve his quality if necessary, and his profit margin by offering something which is highly competitive. One final point on this relationship with your buyer, or prospective buyer is to be prepared to invite him to visit your facility over here. I wouldn't overdo that, but certainly I think an invitation for him to see your facility would give him a degree of confidence and if he does visit we hope that he will be well pleased with what he sees and, of course, if you are not happy with your operation, you don't extend that invitation.

I have spoken so far about direct dealing between yourself and a buyer, be it retail or caterer. You have another alternative and that is to export through a broker or an agent or even sell on a consignment basis. That of course must be for non-branded goods because any branded company will deal direct with the exporter. That will cost you something like 3%. There are very few brokers that will operate in Europe for less than 3%. One thing for sure is that he is going to move your product, because his livelihood depends upon selling and turning it over. But is he going

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to move it at the best price? Some of these brokers are absolutely ruthless, they are determined to sell because they need their cash flow. Another important thing you get from a broker is the assistance in the importation at the port of entry.

I am not very keen on commercial trade shows or exhibitions. I don't think you necessarily get a representative attendance. However, if you decide to attend, they will give you an opportunity to expose your goods to potential clients.

Next step in doing business in Europe is to consider the most likely products you wish to export, which you have developed from a combination of the study of your own resource and of the prospective market. As far as Nfld. is concerned, I see it would be mainly cod, flatfish, ocean perch, herring, squid, salmon, lobster and possibly silver hake. They would be best offered in the natural rather than in the prepared form. By prepared I mean with added value as distinct from making blocks. The reason for this is the tariff barrier on value added products such as fishes in sauce or breaded products is substantially higher than the natural fillet or block. In the case of herring, it can either be exported frozen whole or split or salted and at the moment enjoy a very favourable tariff situation because of the extraordinary situation existing in Europe at the moment. Presently the North Sea herring fishery is totally banned and has been for some time and it is unlikely to come back this year. The Danes though, are now beginning to catch quite a bit in the Baltic. So you should be considering exporting natural or semi-processed products. This also has the advantage especially in the latter case of utilizing your labour in Nfld. It also gives you a freight advantage if you semi-process because you are

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probably shipping 50% or less of the actual weight and it provides your customer with a raw material for direct conversion in his plant.

The opportunity for block production is quite considerable and there is a strong tendency now in Europe to come to a sixteen and a half pound international size block. If anybody is going to invest in new equipment for blocks, I would recommend the sixteen and a half pound block. The eighteen and a half pound is also acceptable by most buyers but there is a tendency to concentrate on the 16 1/2 lb. and to get rid of all the other sizes which each individual company used to have. The exact measurements for the 16 1/2 lb. block, are for Birds Eye - 480 x 253 x 61 m.m., for Findus - 482 x 254 x 63 m.m., and for Ross 480 x 252 x 62 m.m. with tolerances. The depth tolerances is usually only one milimeter. It would depend upon the company. The key is to have very good quality equipment for making these blocks. It is worth spending the extra money to have really thick aluminium frames and exactly the right size dimple cartons, frosters in good condition and good knocking out equipment because the key to this block business is having consistency. Your dimensions must be within the tolerances prescribed and your weights must be correct. That sounds easy but there is a pitfall that you can weigh out what you think is right but unless you pack it quickly you would get a lot of weight loss due to drip. You weight can also be affected by the incorrect depths of your frames. Proper weight, conformity of the block, lack of voids, etc. are all absolutely crucial to the establishment of a good block and lack of rejection or cost penalty because your production doesn't conform to specification.

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Presentation of Samples

Another aspect of doing business in Europe is your presentation of samples. The samples that you present should suit the market or the buyer and not be your own idea. You don't sell blocks of solid frozen fish when your market is really looking for interleaved. Under no circumstances send samples which you cannot repeat on a commercial full scale plant basis. Otherwise you would just run into trouble. Don't dress it up. Send exactly what you can repeat under full production conditions. When sending samples to Europe, you must use adequate dry ice. My general recommendation is about a pound for pound, because of the various locations and distances it has to travel. Clue it all up with Air Canada before your sample leaves - which flight it is leaving on, which transfer points, etc. Get it routed and advise your consignee 24 and preferably 48 hours in advance of the air flight on which it should be arriving. Be absolutely certain to give him the airway bill number. The general accepted practice in Europe with regards to payment of freight costs for these samples, unless you have an established relationship is that you would be expected to pay. It's part of your start up costs. You should be reasonably selective to who you are sending samples. Also, don't plan for your samples to arrive on a Friday. My advise unless there's a real panic, get them away on a Monday or Tuesday so that they arrive on a Wednesday or Thursday.

Prepare all your documents carefully because custom authorities can be awkward if they want to. Put "no commercial value" on your samples because then you wouldn't have any duty to pay.

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Contracts and Agreements

Another aspect of doing business in Europe is your contract or your agreement. First of all you must obtain your buyers written specification (see appendix for typical samples). In this written specification, there must be a complete understanding of what species may be used for the contract, the formulation, the particular processes, the texture, the colour, the flavour, etc.. Packaging is also important. There should be agreed upon tolerances defects. Nothing is going to be perfect and even if it says boneless product, you must agree what tolerances there will be for bones. If your buyer wouldn't give you one, don't trade with him because you cannot possibly produce everything completely boneless. The size of fillet, the tolerances of size of fillet is another matter which is very often important. The tolerances for skin in a skinless product. How much skin is regarded as a piece of skin and what isn't? Weight tolerance is another matter which must be specified. In your specification you should take care of one or two special features. If you are talking about fillets, the degree of glazing and not whether it is single or doubled glazed, but what percentage of glazing and how you are going to determine that percentage in the event of any problems. One very important matter applicable to fillets but also to blocks is the use of phosphates. What level of phosphates may be used and which phosphates may be used. This may vary from country to country. Within the EEC, there is no common legislation on phosphates. Which phosphate you use is a matter which you must agree with your buyer. Put the responsibility on him to make sure that it is acceptable for his governmental authorities. Phosphates can be a major problem. You will also find that

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the majority of contracts, as in all business, have a lot of small print on them. It is worth getting someone to read through it just to make sure there's nothing that really upsets you. If you wish to make certain modifications or negotiate certain modifications to your client's basic contract, get those agreed on in writing as a supplement. (A copy of a typical Birds-Eye Contract is enclosed in the appendix).

I would like now to touch on the provision of exclusivity. Exclusivity works both ways and can generate a bond which can be extremely valuable. It has its advantages in that it keeps everyone else out of your business with a favoured customer, but it only applies to non-commodity or specialized products. You are unlikely to get an exclusive arrangement on something like cod blocks because your buyer on the other side is not going to love you that much that he is going to put all his business to you only and loose his flexibility of bargaining with other people. For non-commodity things, exclusivity is something of which you can consider once you have generated a degree of business. A non-commodity item is a special product like cod in sauce or special treated herring.

Other aspects associated with the contractual arrangement which may or may not be written in contract is your storage temperature for the product and the maximum time for which it should be stored before shipment. These are important because they affect the quality. Particularly if you're talking about herring or mackerel. They also affect your costing and how long you're going to have it in your cold store and how long your cash is going to be locked up. You must agree with your buyer the method of transportation and the temperature of transportation.

You must also agree with your buyer, and this almost certainly will be on the contract, the terms of trading.

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Is it going to F.O.B. (Free on Board), C.I.F. (Cost, Insurance, Freight), duty paid, etc. In coming to these arrangements, you should consider who can get the better freight rates. It is sometimes possible that the buyer might get a better freight rate than you can. Now, who is going to organize the loading and unloading and be responsible for the payment of it? It all should be part of your trading terms. In reference to the currency in which you are going to trade, the buyer will most often prefer to trade in his currency because he knows where he is, etc. In that case, you as the seller more than likely have to or wish to conform to his requirements. Now you have to consider whether you are going to sell forward. This is very important with changing currency rates. Now you also have to decide on terms of payment. Will it be an irrevokable letter of credit, cash against document, 30 days, 60 days? When are you going to get your money? How are you going to get your money? The best way to start is always try to get an L/C. You must also decide on delivery date or delivery schedule, especially if it is a long-term contract. If you are in a long-term contract you might find it quite sensible to have a basic contract with an escalation clause. It will give you a degree of protection and takes the element of risk out of your judgement.

Another excellent basis of trading from your point of view is to export on a processing charge in which your buyer is responsible for paying the raw material price and you make a processing charge. You will be very nicely covered, but not too many buyers obviously would do that, but they do exist.

Next I would like to touch on agreement on the rejection clause. Every buyer of course will insist upon a right of rejection. In the case of an absolute dispute, you must decide where you go for arbitration. Generally,

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you will find that the buyer would want arbitration under his laws. You shouldn't have to worry in Europe about that except that you want to establish who would be the arbitrating body in the event of a dispute of a non-commercial nature. This is where the biggest problems arise. It is not to do with payment or terms of trading but usually to do with quality. It is a very difficult matter sometimes when your buyer says that your product is not up to the quality which he ordered. My advice in this respect is that you should always keep samples representing your day's production. You should also have a thorough quality control system and keep your records of your quality control so in the event of a complaint at least you have got your samples which are exactly the same age as the buyers bulk. You also got your quality control records relating to that particular day's production. This is presuming that you code. Everything in my opinion should be coded. Eventually if you have to go to arbitration it has got to be decided who will be the arbitrator. For instance, in the U.K. one would consider the government research station.

Don't forget that it is good practice to keep samples in your own cold store and keep quality control records. It is also not a bad idea to encourage the best relationship with your buyer and send him copies of your quality control records. It is also a good practice to run your cold stores at -28°C or -18°F particularly for any fatty products. It is common practice also to ship at -18°C or 0°F.

The contractual agreement has to be thoroughly understood by both parties and it has to be committed to writing in a form of a contract or an agreed amendment to the contract.

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Payment Terms and Financial Arrangements

Right now I shall move on to certain financial arrangements. Your customer might insist that you trade in their currency. It is a matter of personal choice as to whether or not you speculate in the currency market ahead or whether you cover. The payment terms if you don't know your client or have very reliable references is the irrevokable letter of credit, otherwise your cash against documents. The period generally accepted is the 30 day payment period. That obviously is negotiable. The present bank rate now in the U.K. on short term loans is 20 or 21%. The minimum lending rate would be 17 1/2% - 18%.

Letters of credit can run you into all sorts of difficulties unless it is absolutely clear what you are talking about. What your terms are. Here you have not only the seller and the buyer but you also got the bank. It is the bank eventually which is going to honour and pay against an LC. There must be clarity of terms of trading, specification of the goods, rejections conditions, etc. The bank must understand all the conditions which need to be fulfilled before they actually honour. If the banks make a mistake, then someone is going to get hurt. Generally banks work just like machines and if they think everything is being done okay, the LC is discharged. The banks can create difficulties unless they are well informed and that means they got to understand the LC business. Sometimes LC's are only honoured after satisfactory quality control sampling by the buyer. That is not unreasonable. Tolerance have to be agreed on. Sometimes the buyer, indeed the Birds-Eye company will normally include 28 day rejection period. This can lead to complications if it was done on an LC. Most likely you probably got your money and the goods are

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rejected on the other end. There are difficulties arising from such circumstances. In every circumstance, if you are not getting an LC you should check out your customer's bank and trade references and even check with other suppliers. You can very often talk to your colleagues of their experiences and check with them about the honour of your prospective buyer.

The liability for insurance in transit should be established between you and your customer. It is also wise to cover against the bankruptcy of your customer. Check with your government for their export credit program. Also get yourself a good credit manager. He can pay for his salary several times over. It is amazing how many companies will allow the credit to go on. It leaves a lot of money to be lost or gained and we are talking about interest rates of 20%. You should also watch your cash flow very carefully and allow the interest on your cash to reflect in your pricing because so many people these days are forgetting that money is costing a great deal.

Tariffs and Legal Requirements

The E.E.C. tariffs are of course of particular interest to you. There is a booklet which is published that covers all the tariff rates in the E.E.C. on fish and fishery products. Although there are temporary amendments made from time to time, it is a useful booklet to have. Most tariff changes are posted six months in advance so as you get good warning. A word of advice is to have your buyer keep you informed of any changes, because you will find it difficult to keep pace with E.E.C. Commission rulings and changes. This is particularly important if you pay the tariff, but my advice would be to deliver on a CIF basis, not duty paid

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then you are not affected by such changes; otherwords, sell before duty.

Legal requirements in the E.E.C. are numerous and are specific to countries. They are not even uniform within the E.E.C., although there is a move to have conformity within the E.E.C. on almost everything including currency. Since you can't expect to know the specific legal requirements of any particular country, you should put the responsibility on your buyer and even absolve yourself in your contract or letter pertaining to the contract that you will not be responsible for legal requirements on which he hasn't advised you on. That's a protection clause. An example is permitted colouring methods, (i.e. added edible colour). You may find that a colour permissible in one country is not permissible in another. Phosphate is also of particular importance if it has to be used. You have to get answers to the type of phosphate to be used, the proportions, etc.

Even carton printing ink can be a matter of importance. In fact in the Japanese market the actual ink used in printing on the outside of the carton can be prohibited. Your packaging and weight regulations are also very important. You have to be very careful here in regards to accepted weight and weight tolerances because you can be prosecuted for carton underweight. So it is important to know what are the weight regulations of the market into which you are exporting.

Another point of importance is hygiene or bacteriological standards. They will normally be described by your buyer. The common bacteriological standards are the total viable count (TVC) which will vary from country to country. You should pay close attention to each government bacteriological specifications, especially those applied at the port of entry.

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Transportation

Your first priority here must be to meet your customer's requirements and to be unfailing to deliver on the correct date. This is very important with a number of companies who have planned schedules for conversion of your raw material into their product. So you got to agree on a delivery date as early as possible as part of your negotiations. And of course having an early delivery schedule enables you to get the most economical shipping because you got time to plan it and remember you may have to take into account your own raw material availability.

When we come to the actual shipping, if your order is large enough, you would charter. There are quite a few charter vessels available with quick frozen temperatures. You would normally want 500 tons. There is some 250 tonners going across the Atlantic to Europe. That is a fair quantity therefore, it might be sensible sometimes to work together with another producer. The disadvantage is that the other fellow knows what you are doing. Also if you are going to ship in 250 or 500 ton lots, you got to take into account your cold storage costs and your cash lockup for the period while you are accumulating the big load and build those into your price. Another popular method of shipping is in 20 or 40 ft. containers.

The proper transport temperature I recommend is minus 18$^{o}$C or if it's going to be higher -10$^{o}$C. Before you ship, get the absolute agreement of the buyer of what the temperature should be. The maintenance of the prescribed temperature is a very important condition of insurance, especially if you are shipping on a CIF basis. Another point I would like to stress is the supervision of the handling of your goods at any particular stage or port. If you are going

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to load a truck here, have an agent or somebody look after your goods when they are put into a container for instance at Halifax to be shipped across. On the documentation, you may be required to have a bill of lading, certificate of origin or certificate of health issued by your own government laboratory certifying the bacteriological standards taken from your samples. Your buyer should be able to tell you what is required to get them through the European port without trouble. I think it is safe to say that the customs and excise people in most of the European countries are not difficult, as long as your documentation is right and sampling level is not too high.

Terminology

Terminology in the North American Continent is a bit different from ours. I found in talking to shipping agents that great care is required to avoid confusion and antagonism and cost arising from innocent errors made between two parties who thought they were talking about the same thing. So the trade terms must be clearly understood and defined by the buyer and seller. F.O.B. (free on board), now in Europe, means physically placed on board ship. It does not mean just placed along the side or free on truck ten or twenty miles away from port. It doesn't mean ex-coldstore. I think over here it is actually put over the ship's rail. If there is any doubt, it should certainly be specified. If I'm the buyer and I'm buying it from you F.O.B. I would expect you to put it on board in Canada with no expense to me whatsoever. F.A.S. (free alongside shed) is another term. In Europe we understand F.A.S. to put literally along the side of the ship, free alongside and through the loading shed. C.I.F. is probably the most usual way in which you would do trade. The F part of C.I.F. includes

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over the rail at the other side and put ashore. So with terminology make sure that you and your buyer understand and are agreeing on the same thing.

Packaging Requirements

If you are packing in cases of bulk, the type of packaging wouldn't be that important to your buyer as long as you protect the goods properly, because he has to reprocess them anyway.

A word of warning on packaging if you are going to buy it. Secure an order big enough to cover your development, introductory or overhead costs, and any fixed committment because they can sometimes be quite considerable. Also get your packaging order covered unless you are going to be speculating. There's nothing worse than committing yourself to half a million pounds which is specifically branded for Mr. X and then loose your order. You are left then with this extra packaging. Another way, which I think is the best way, is to have the buyer take the financial responsibility for the packaging and you draw on it as you want it. So they order it in the quantities required. They finance it under your direction and you draw on it from the packaging manufacturer. Similarly, if you find yourself engaged in any packaging machinery, then you must cover the costs of doing so with an order which is large enough.

Review: Major Difficulties

I would like now to review some of the major difficulties which might arise when you are trading in Europe. In the trading area, you may run up against temporary restrictions. For instance, I believe in Norway they are not allowed to import any mackerel at the moment. These regul-

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ations of course, are made to protect local resources, local employment and are not usually done overnight. Another example is the present change in entry prices in the E.E.C. whereby they have guide prices under which you are not allowed to import or sell under.

Actual physical delivery is another major difficulty which may arise. Most important is non-adherence to your client's specification. You should have a written specification that you must adhere to. Thus, if you don't and you got a rejection, you wouldn't have a leg to stand on. It is even more difficult with the quality of your goods. So keep good quality control records and take all the defensive measures you reasonably can over here to protect yourself.

Lack of clarity on the terms of trading and late delivery are two other major difficulties that may arise. Late delivery can cause you a lot of trouble. A buyer can, strictly speaking, reject the load if it is late. If your product is going to be late, get on the phone or telex and explain your situation to your buyer.

Now I think that covers the main points that I wish to say to you. I hope I have covered all the things from your point that would be important.

## APPENDIX I

Purchase Contract - Birds Eye Foods Limited

ACKNOWLEDGMENT COPY

# BIRDS EYE FOODS LIMITED

HEREINAFTER CALLED "THE BUYER"
STATION AVENUE,
WALTON-ON-THAMES, SURREY

Telephone: WALTON-ON-THAMES 28888
Telegrams: "KWIKFREEZ" WALTON-ON-THAMES TELEX
Telex: 261295

CONTRACT NUMBER

HCG/ 3593

To be Quoted in Full on Advice Notes Invoices and All Correspondence

HEREINAFTER CALLED "THE SELLER"

We have this day brought from you and you have sold to us the Merchandise specified below subject to and in accordance with the instructions and conditions detailed below and overleaf.

Date .....

## PURCHASE CONTRACT

DESCRIPTION/SPECIFICATION .....

.....

.....

.....

.....

QUANTITY .....

PACKING MATERIAL .....

POINT OF DELIVERY OR SHIPMENT .....

DATE OF DELIVERY OR SHIPMENT .....

PRICE .....

.....

TERMS OF PAYMENT .....

MARKS .....

REJECTION PERIOD .....

SPECIAL CONDITIONS —

We hereby accept your Order in accordance with the instructions and conditions specified herein.

Date.....19.....  Signature.....

+1

## INSTRUCTIONS

1. The attached acknowledgment copy must be signed and returned to the Buyer within seven days of receipt of this Contract.
2. All correspondence in connection with this Contract must be addressed to the Buyer.
3. Advice Notes and Invoices must bear the serial number of this Contract and should be sent to the Buyer on the same day as goods are despatched.
4. Goods must be FREE delivered to the Buyer, unless otherwise stated.

## GENERAL CONDITIONS OF PURCHASE CONTRACT

1. Unless otherwise stated:—
   (a) The property in the goods remains with the Seller until they are delivered at the Buyer's premises.
   (b) The Buyer reserves the right to reject within the specified period the whole or any part of any consignment, which on arrival at their premises does not correspond in quality, fitness or description with this Contract, or which in the opinion of the Buyer is unsuitable for quick-freezing.
   (c) In the case of poultry or animals, whether brought on the live or dead weight principle, all meat is subject to inspection by a Local Government or other qualified meat inspector at the Buyer's premises.

2. DELIVERIES. (a) If at any time deliveries under this Contract are suspended due to the happening of any event beyond the control of Seller or Buyer, including lock-outs by Seller or Buyer of their own workmen, neither Seller nor Buyer shall have any claim against the other for failure to make or take delivery respectively, whether such failure be total or partial, permanent or temporary.
   (b) Each delivery shall be construed as a separate Contract and the failure of any delivery shall not vitiate the Contract as a whole.

3. ASSIGNMENTS. Rights and obligations under this Contract are not to be assigned by either party without the consent of the other, provided that Buyer shall be entitled to assign to any of its Associated Companies at its option.

4. BANKRUPTCY. The Buyer may, by notice in writing cancel this Contract, if the Seller become bankrupt, or makes any arrangement with his creditors, or being a Company goes into liquidation either voluntary or compulsory.

5. DISPUTES. This Contract shall be governed by English Law, and all disputes which may arise, relating to, or arising out of the order shall be submitted to arbitration in London, and the provisions of the Arbitration Act, 1950, or any statutory re-enactment or modification for the time being in force shall apply.

6. PATENTS. The Seller shall not infringe any patent rights and in the event of any breach of this condition the Buyer shall be indemnified by the Seller against any cost loss or expense which might result from such a breach.

7. This Contract takes precedence over any Contract, Order or other document issued by the Seller.

8. The Seller shall ensure that the product is, after quick-freezing, maintained at all times (both whilst in transit and in Cold Store) at a temperature not higher than 0°F. The product temperature shall be checked at regular intervals and in particular at port of shipment.

9. All goods supplied under this Contract shall comply in all respects with the provisions of the Food and Drugs Act, 1955, and any regulations made thereunder.

**INSTRUCTIONS AND CONDITIONS SET OUT IN THIS CONTRACT MUST BE OBSERVED, OTHERWISE THE CONTRACT MAY BE CANCELLED**

## APPENDIX II

Birds Eye Food Limited co-packer product specification for non-phosphated filled aligned blocks 16 1/2 lb. (7.48 kg.) including 13 1/2 lb. (6.12 kg.) and 18 1/2 lb. (8.40 kg.) blocks.

CONFIDENTIAL

COPY NO.

BIRDS EYE FOODS LIMITED

CO-PACKER PRODUCT SPECIFICATION

NON-PHOSPHATED FILLET ALIGNED BLOCKS 16½ LB (7.48Kg)

(INCLUDING 13½LB (6.12Kg.) & 18½LB (8.40Kg.) BLOCKS)

A. RAW MATERIAL

B. PROCESSING

C. QUALITY CONTROL

D. PACKAGING

E. APPENDIX 1 - Production of 13½lb (6.12Kg.)Blocks
APPENDIX 2 - Production of 18½lb (8.40Kg.)Blocks

| AMENDMENTS | |
|---|---|
| Ref. No. | Pages |
| | |
| | |
| | |
| | |

RESEARCH & DEVELOPMENT UNIT
DATE EFFECTIVE FROM: 1st September 1979

Replaces issue dated:
22nd November 1978

## A. RAW MATERIALS

1. FISH

1.1 Species

Cod
Haddock

1.2 Quality

Grade A (Shewan assessment)
Fresh or equivalent frozen at sea material.

## B. PROCESSING

### PREPARATION OF FISH

1.1 Handling

Whole fish should be iced on receipt. All fish must be adequately washed before filleting.

Filleting - Manual or by machine.

1.2 Skinning

Manual or by machine.

1.3 Boning and Trimming

Lateral bones (pin bones) removed by v-cutting operation. Any gut, roe, bones, excessive bruising or discolouration should be trimmed. Napes may be left on the fillets provided they are reasonably free from bloodstains. Fillets containing excessive amounts of Brown Muscle should not be used.

### 2. PREPARATION OF BLOCKS

2.1 Moulding of Blocks

a. Grading

All fillets exceeding 0.75kg must be hand sliced diagonally across the fillet so that the cut pieces do not exceed 20mm in depth. Blocks may only contain 5% by weight of pieces less than 50g in weight.

b. Weight

To produce average frozen block weight of 16½lb (7.48Kg) with range 16lb 6oz (7.43Kg) to 16lb 10oz (7.54Kg).

c. Alignment

Fillets must be aligned along length of block with skinned side facing centre of block.

d. Dimensions

Average block dimensions 480 x 253 x 61mm.

e. Packaging

Carton: To conform to the attached specification or to an alternative agreed with Birds Eye.

Outer Packaging: To be agreed with Birds Eye.

f. Knock Out

Blocks to be removed from frames by means of mechanical system. Water release must not be used.

## C. QUALITY CONTROL

ACCEPTANCE CRITERIA

| | Defect | Description | Maximum Acceptable Level of Defective Blocks |
|---|---|---|---|
| 1. | Underweight | a) Average weight less than 7.48 kg (16½lb) | Nil |
| | | b) Individual weight less than 7.43 kg | Nil |
| 2. | Damage | Crushed, cracked or mutilated block | Nil |
| 3. | Geometry | a) Bowed block which will not pass under jig set at 64 mm | Nil |
| | | b) Blocks with width or length dimensions outside ranges of 253 ± 3 mm or 480 ± 3 mm respectively | Nil |
| 4. | Improper Fill | Blocks with more than 3 of any of the following defects on total surface area | Nil |
| | | a) Air space or repression larger than $1cm^2$ and 3 mm deep. | |
| | | b) Solid ice area larger than $1cm^2$. | |
| 5. | Colour | a) Blocks where colour deviates from normal colour of the species, or have an overall pink colouration. | Nil |
| | | b) Blocks which exceed No. 6 on brown muscle scale | Nil |
| 6. | Dehydration | a) Shallow and not colour masking. | 10% |
| | | b) Shallow, but deep enough to mask colour fish flesh. | 5% |
| | | c) Deeper than above. | Nil |
| 7. | Carton Inclusion | Any block where any part of carton has been included in frozen fish portion. | Nil |
| 8. | Blemishes | Blocks containing more than three of any of the following defects: | Nil |
| | | a) A piece of skin between 3 and $10cm^2$ in area. Larger pieces shall be considered as two pieces of skin. | |
| | | b) A blood spot over 3 mm in diameter. | |
| | | c) Black/white membrane over 15 mm in length. | |
| | | d) Scales - if of such a degree as to be considered objectionable. | |
| | | e) Two fish worms greater than 3 mm in any dimension. | |
| 9. | Bones | a) Blocks containing more than 5 bones where length is between 10 and 40 mm, or width is between 3 and 10 mm. | Nil |

| | | | |
|---|---|---|---|
| | | b) Blocks containing one bone with length greater than 40 mm or width greater than 10 mm. | 10% |
| | | c) Blocks containing two or more bones with length greater than 40 mm or width greater than 10 mm. | Nil |
| 10. | Parasites | Blocks containing more than 10% by weight of fillets with readily visible black Baltic parasite. | Nil |
| 11. | Fillet Size/ Alignment | a) Blocks comprised more than 5% by weight pieces less than 30g in weight. | Nil |
| | | b) Blocks containing fillets larger than 1 Kg. | Nil |
| | | c) Blocks where fillets are not correctly aligned along length of block. | Nil |
| 12. | Packaging | Packaging of a quality lower than the minimum Birds Eye standards. | Nil |
| 13. | Odour | Defrosted blocks containing stale or sour odours. | Nil |
| 14. | Texture | Defrosted blocks containing very soft sloppy or soapy textures. | Nil |
| 15. | Flavour | a) Blocks containing traces of 'off' flavours or staleness. | Nil |
| | | b) Any foreign flavours. | |

CONFIDENTIAL

LABORATORY SECTION

NON-PHOSPHATED FILLET ALIGNED BLOCKS

| | | |
|---|---|---|
| Bacteriology | a) T.V.C. > 250,000 | 10% |
| | b) T.V.C. > 1,000,000 | 5% |
| Methods to be | c) T.V.C. > 2,000,000 | Nil |
| approved by | d) V.R.B. > 100 | 10% |
| Birds Eye Foods | e) V.R.B. > 2,500 | 5% |
| Limited | f) V.R.B. > 2,500 | Nil |
| | g) E. coli > 10 | 10% |
| | h) E. coli > 20 | 5% |
| | i) E. coli > 100 | Nil |
| | j) Staphs > 100 | 10% |
| | k) Staphs > 200 | 5% |
| | l) Staphs > 500 | Nil |

D. PACKAGING : T367-180679

## CARTONS FOR MOULDING 1GÅLB (7.38KG) FISH BLOCKS PRODUCED BY CO-PACKERS

**BOARD:** The board shall be equivalent to the U.K. Specification (300 gsm Thames 'Unilner' Kraft lined chipboard). It shall be made from 230 gsm-240 gsm 'Test Liner' medium sized chipboard which has 50 gsm-60 gsm hard sized pure pulp (Kraft) applied to the outside.

**WAXING:** The board shall be waxed both sides with 50 gsm-60 gsm high gloss fully refined paraffin wax with an empirical melting point of between 60-63°C. The wax shall be applied uniformly.

The wax shall impart gloss, good scuff resistance, and good release properties.

**DIMENSIONS & PROFILE:** The dimensions shall be 180 mm x 252 mm x 59 mm deep. The profile shall conform exactly to Technical Drawing C361B. The carton shall be cleanly cut and free from ragged edges.

**BIOLOGICAL SAFETY:** The materials covered by this specification must have F and D.A. approval, and shall be suitable in all respects for use in the intimate packing of, or in direct contact with, frozen foods.

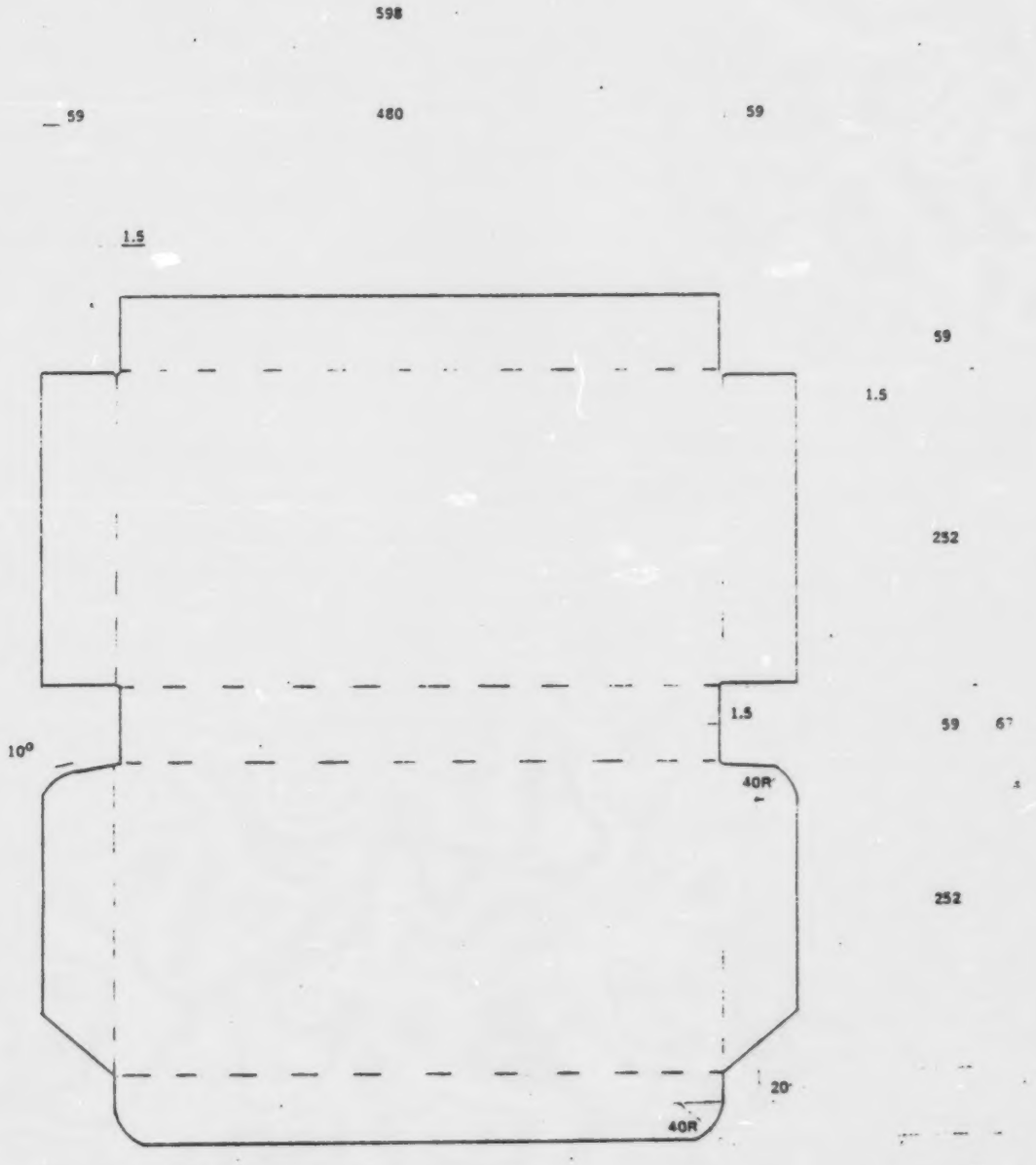
**PACK HANDLING AND STORAGE:** All materials shall, having regard to the proposed contents thereof, be functional at temperatures down to -40°C within the normal extremes of handling under production, storage, and distribution conditions.

**ODOUR:** All materials shall be free from odour, which would give rise to any off flavours or tainting of the product.

**WATER ABSORBTION:** Water absorbtion using Cobb sizing tester. Samples to be tested to be uncreased. 95% of results to be less than 30 gsm for 3 minutes in contact with water.

**DATE OF ISSUE:** 18th June 1979.

TECHNICAL DRAWING : C361B




ALL DIMENSIONS IN MILLIMETRES
(NOT TO SCALE)

ALL CREASING TO BE 3 FT.
KRAFT LINER TO BE INSIDE CARTON

CUTS SHOWN _____

CREASES SHOWN _ _ _

## E. APPENDICES

APPENDIX 1

For 13½ lb. (6.12 kg) blocks this specification is amended as follows:

Page 4 Para 2.3.b

Weight

To produce average frozen block weight of 13½ lb. (6.12 kg) with range 13 lb. 6 oz. (6.07 kg) to 13 lb. 10 oz. (6.18 kg).

Page 4 Para 2.3.c

Alignment

Fillets must be aligned across width of block with skinned side facing centre of block.

Page 4 Para 2.3.d

Dimensions

Average block dimensions 508 x 292 x 40 mm

Page 5 Para 1

Underweight

a) Net Weight less than 13 lb. 6 oz. (6.07 kg) Nil

b) Average weight less than 13½ lb. (6.12 Kg) Nil

Page 5 Para 3

Geometry

a) Bowed block which will not pass under a jig set at 43 mm Nil

b) Blocks with width or length dimensions outside ranges of 292 ± 5 mm or 508 ± 5 mm respectively Nil

Page 6 Para 9

Bones

a) Blocks containing more than 4 bones where length is between 10 and 40 mm, or width is between 3 and 10 mm Nil

b) Blocks containing one bone with length greater than 40 mm or width greater than 10 mm 8%

c) Blocks containing two or more bones with length greater than 40 mm or width greater than 10 mm Nil

APPENDIX 2

For 18½ lb. (8.40 kg) blocks this specification is amended as follows:

Page 4 Para 2.3.b

Weight

To produce average frozen block weight of 18½ lb. (8.40 kg) with range 18 lb. 6 oz. (8.33 kg) to 18 lb. 10 oz. (8.45 kg)

Page 4 Para 2.3.d

Dimensions

Average block dimensions 480 x 290 x 61 mm

Page 5 Para 1

Underweight

| | |
|---|---|
| a) Net Weight loss than 18 lb. 6 oz. (8.33 kg) | Nil |
| b) Average Weight less than 18½ lb. (8.45 kg) | Nil |

Page 5 Para 3

Geometry

| | |
|---|---|
| a) Bowed block which will not pass under a jig set at 64 mm | Nil |
| b) Blocks with width or length dimensions outside ranges of 290 ± 3 mm or 480 ± 3 mm respectively | Nil |

Page 6 Para 9

Bones

| | |
|---|---|
| a) Blocks containing more than 6 bones where length is between 10 and 40 mm, or width is between 3 and 10 mm | Nil |
| b) Blocks containing one bone with length greater than 40 mm or width greater than 10 mm | 11% |
| c) Blocks containing two or more bones with length greater than 40 mm or width greater than 10 mm | Nil |

## APPENDIX III

Findus Limited purchase specification for blocks of fish (land-frozen).

FINDUS LIMITED

STRICTLY CONFIDENTIAL

# BLOCKS OF FISH (LAND-FROZEN) - PURCHASE SPECIFICATIONS

## 1. PRODUCT DEFINITION

The product consists of deepfrozen blocks of boneless and skinless fillets. Unless special written authorization is given, the use of minced fish flesh, polyphosphates or any other additives is prohibited.

The finished product, when taken from carton, shall have correct dimensions, have a clean, white appearance, contain practically no bones, blemished skin, shredded pieces, blood spots, voids, ice deposits and emit no odour.

## 2. RAW MATERIAL

### a. Fish species

See addendum

### b. Handling on board

The fish shall be bled immediately after catching (fish still alive), then be gutted (latest 6 hours after the catch) and shall not be exposed to sun, heat from engine room, etc. After bleeding and gutting the fish shall be washed and then stored in ice, preferably in boxes of maximum 90-litre capacity. The boxes must be whole and clean, outside and inside, before use. If rapid gutting is not practicable the whole fish should be washed and iced as soon as it comes on deck. A thorough washing of the fish helps to remove gut contents squeezed out of the fish in the net. Thereby bacterial spoilage will be reduced considerably.

The amount of ice must be sufficient that all fish are in direct contact with ice at the time of unloading the fish on shore. Only clean ice must be used.

### c. Age of fish

Fish, properly iced, can be accepted

- up to 2 days if ungutted
- up to 4 days if gutted

but this will depend on species, fishing ground, season, treatment, etc. The quality of the fish must comply with

the quality standards given later. All operations on board must be carried out in accordance with good commercial practice.

The boxes of iced fish should be marked in such a way that it is possible to identify the number of days in ice, and thus organize the processing on shore in such a way that optimal quality is obtained.

d. General quality requirements

Fish to be used as raw material for block production shall comply with the following general requirements:

1. The fish shall be well gutted and well bled (exception ungutted fish, see above).

2. The fish shall otherwise be reasonably free from marks resulting from mechanical damage.

3. The fish tissue shall be reasonably firm.

4. The fish shall be free from foreign odours and free from discolourations.

5. Frozen fish is not allowed as raw material.

When the fish raw material is purchased or received for processing, it shall be controlled that it complies with the above general quality requirements.

3. MANUFACTURING

a. Sorting out of bad fish

Before processing, the fish must be 100 % sorted by specially trained persons. A fish stored under unfavourable conditions may spoil in as little as 12-24 hours.

b. Processing

The fish is gutted (if not already done at sea), washed, headed, filleted, skinned, made boneless through the application of a "V-cut", and is finally manually trimmed. This trimming serves the removal of remaining skin-pieces, fins, bones, black lining of belly wall, discoloured areas, parasites and other faulty parts. In case the fish is infested all fillets are to be candled and all worms removed. Heavily infested fillets are not to be used.

If filleted and skinned by hand, the filltes must be washed after filleting. Before being weighed into the cartons the fillets must be allowed to drain off. This draining serves the removal of external water and is absolutely necessary to prevent ice pockets in the blocks.

When machine filleting is used it might also be necessary to allow a draining off in order to remove external water from the washing of fillets during the skinning process.

c. Packing

The fish will be held for a maximum period of 2 hours between filleting and packing.

The packing is done by hand.

The fish fillets (cross cut if needed) shall be packed orderly into cartons, according to separate instructions. It is important to assure that sufficient material is packed into the corners and along the sides of the cartons. Otherwise voids may occur.

It is important that the flaps of the cartons be folded so they will not become embedded within the frozen block, thereby making it difficult to unfold carton from block.

To compensate for additional drip losses before and during freezing it is necessary to include an overweight during packing. The necessary overweight may vary with age of fish, season, etc. but will be in the order of 1-3 % in weight.

The cartons shall be inserted in frames of the appropriate dimensions corresponding to the size of the block.

The shape of the frames must be checked regularly in order to replace deformed frames.

d. Freezing

The fish will be held for a maximum period of 1 hour between packing and freezing.

The blocks will be frozen in a plate freezer to an equalization temperature of -20° C or lower and held in cold storage at a temperature of not more than -28° C/-30° C.

4. QUALITY FACTORS/TOLERANCES

a. Processing control

The Processing control comprises the control of the fillets after packing and the control of the packed blocks. Examination of the product should be carried out often enough to allow a statistically significant evaluation of product quality, which will be of such a standard as to conform to the final product standards (see below).

b. Final product standards, packed blocks

Defects are graded as follows:

1. Soiled cartons

| | |
|---|---|
| - No defect | 0 points |
| - Soiled outer cartons, but clean inner cartons, each | 2 points |
| - Soiled inner cartons (undamaged cartons), each | 5 points |
| - Soiled inner cartons, damaged cartons (soiled fish), each | 25 points |
| Tolerance: | Max.6 points/25 blocks |

2. Damaged cartons

| | |
|---|---|
| - No damage | 0 points |
| - Slightly damaged cartons, but fish cannot be openly seen, each | 2 points |
| - Damaged carton, less than 10 $cm^2$ of fish block can be openly seen, each | 5 points |
| - More than 10 $cm^2$ of fish block can be openly seen, each | 15 points |
| Tolerance: | Max.6 points/25 blocks |

3. "Freezer burns"

| | |
|---|---|
| - No "freezer burns" | 0 points |
| - Slight, frost-like drying of surface layer, per block | 2 points |
| - More serious drying out than above, per block | 10 points |
| Tolerance: | Max.6 points/25 blocks |

4. Orientation of fillets

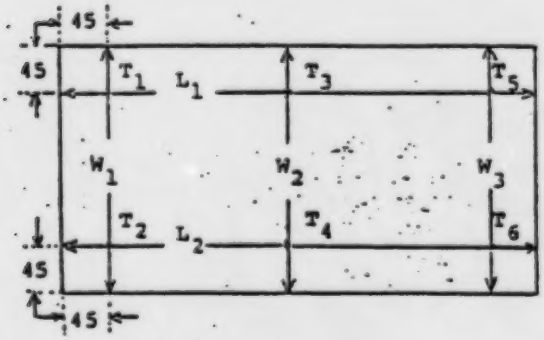
| | |
|---|---|
| - No defects | 0 points |
| - Orientation missing, per block | 5 points |
| Tolerance: | Max.6 points/25 blocks |

5. Defective code-marking

| | |
|---|---|
| - No defects | 0 points |
| - Code-marking illegible or missing, per block | 5 points |
| Tolerance: | Max.12 points/25 blocks |

6. Dimensions

The block dimensions are measured at 45 mm from the block edges. For thickness (height) measurements a caliper gauge should be used.




L = Length (2 measurements)
W = Width (3 measurements)
T = Thickness (6 measurements)

Deviations from nominal dimensions not exceeding (mm):

| Length | Width | Height | |
|---|---|---|---|
| ± 2 | ± 2 | ± 2 | = 0 points |
| ± 3 | ± 3 | ± 2.5 | = 2 points |
| ± 4 | ± 4 | ± 3 | = 5 points |
| More than above | | | = 15 points |
| Tolerance: | | | Max.70 points/25 blocks |

7. Holes, missing corners or sloped edges

- No holes or only holes smaller than ½ $cm^3$ = 0 points
- Holes larger than ½ $cm^3$ but smaller than 1 $cm^3$ = 2 points
- Holes larger than 1 $cm^3$ but smaller than 2 $cm^3$ = 5 points
- Holes larger than 2 $cm^3$ = 15 points

Tolerance: Max.70 points 25 blocks

c. Final product standards, thawed fish

The following examinations are carried out with approximately 2 kg defrosted fish cut from each sample block (to be regarded as representative for the whole block)

1. Remaining parts of guts and blood clots

| | |
|---|---|
| - Particles less than 2 mm in largest dimension | = 0 points |
| - Particles of guts or blood clots between 2 and 5 mm | = 2 points |
| - Particles larger than 5 mm | = 5 points |
| Tolerance: | Max. 2 points/kg |

2. Bones or fins

| | |
|---|---|
| - No bones or only soft bones shorter than 5 mm in length and smaller than 1 mm in diameter | = 0 points |
| - Bones between 5 mm and 15 mm in length, but smaller than 1 mm in diameter, each | = 2 points |
| - Bones longer than 15 mm or larger than 1 mm in diameter, each | = 5 points |
| - Flat individual bones larger than 0,25 $cm^2$ | = 5 points |
| - Part of fins: each ray therein | = 5 points |
| - Bones longer than 30 mm, fins larger than 2 $cm^2$ or collarbones are not permitted | |
| Tolerance: | Max. 8 points/kg |

3. Skin pieces

| | |
|---|---|
| - No skin pieces | = 0 points |
| - Skin pieces smaller than 1 cm in largest dimension | = 2 points |
| - Skin pieces larger than 1 cm | = 5 points |
| Tolerance: | Max. 3 points/kg |

4. Discolourations

| | |
|---|---|
| - No discolourations | = 0 points |
| - Discolourations smaller than 10 mm in largest dimension, or fillets with slightly pink colouration | = 2 points |
| - Discolourations larger than 10 mm, or fillets with pink discolouration | = 5 points |
| Tolerance: | Max. 2 points/kg |

5. Parasites

| | |
|---|---|
| - No parasites, or only parasites with a capsular diameter, smaller than 2 mm | = 0 points |
| - Parasites with a 2-3 mm capsular diameter, each | = 2 points |
| - Parasites larger than above, each | = 5 points |
| Tolerance: | Max. 5 points/kg |

6. Foreign particles (hair, wood, stones, metal, embedded cartons)

Tolerance: No foreign particles are allowed

7. Overall evaluation of physical defects

Tolerance: The total number of grading points under 1-5 Max. 16 points/kg

d. Organoleptical properties (texture, flavour)

The cooking is carried out by immersing the fish into boiling water containing 1,5 % salt for approx. 20 minutes directly from the frozen state.

The samples are evaluated according to a 10-point scale scoring system with

1 = extremely poor
5 = acceptable
9 = extremely good

Tolerance: No sample is allowed to score below 7 points for texture and flavour.

e. Chemical Requirements

TVB:
Max. 20 mg TVB nitrogen per 100 grams fish muscle is tolerated.

Heavy Metals: Maximum permitted
Lead 2 ppm Arsenic 1ppm Cadmium 0.5 ppm Mercury 0.5 ppm

f. Bacteriological Requirements

1. Total count

On "Plate Count Agar" for 72 hours at 30° C, maximum 500'000/g in 90 % of analysis, and no results greater than $10^6$/g.

2. E. Coli

On "Brillant-Green-Bile" for 48 hours at 44° C, maximum 10/g in 95 % of analysis and no results greater than 100/g.

3. Path. Staph.

On "Baird-Parker-Agar" for 48 hours at 37° C and confirmed by coagulase test, maximum 10/g in 95 % of analysis and no results greater than 100/g.

4. Salmonella

Absent in 50 g

g. Classification of "Defectives"

1. External block quality

A block unit of 25 blocks that fails to meet one or more of the applicable quality requirements, as set out in subsection 4.b.1. through 4.b.7. shall be considered a "defective".

2. Internal block quality

A block that fails to meet one or more of the applicable quality requirements, as set out in subsection 4.c.1. through 4.f.4. shall be considered a "defective".

h) Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in subsection 4 g when the number of "defectives", as defined in subsection 4 g, does not exceed the acceptance number (c) of FAO/WHO Codex Alimentarius Sampling Plans for Prepacked Foods, 1969.

5. GENERAL HYGIENIC CONDITIONS

The product must have been produced under hygienically perfect conditions.

6. SIZE AND WEIGHT

According to separate instruction.

7. PACKAGING MATERIAL

According to separate instruction.

8. CODE MARKING

To be applied on the cartons according to the instructions of the buyer.

10. PACKING - General Requirements

a. Carton (Liner)

The board used for the liner should be food grade ie pure Kraft.

The board should be coated with a moisture proof barrier to prevent ingress of moisture and evaporation and provide a quick release agent for easy stripping of the block.

b. Outer Case

The outer case must be of such construction as to withstand transportation hazards and cold storage. The case must be closed using glue or tape with addition of plastic strapping if available.

STAMPLES MUST NOT BE USED

c. Labelling

The outer case must be stamped or labelled withthe product code, production date and plant reference.

d. Transportation

Prior to dispatch the product must be held in cold store operating at a temperature of -28°C or below.

The cases will be stacked on pallets.

The temperature of the blocks must not rise above -18°C during transport and storage.

The ships refrigeration capacity will be such as to ensure the product temperature will remain below -18°C for the duration of the voyage.

ISSUED BY P W SMYTH
SPECIFICATION CO-ORDINATOR
HR/PWS/JMA/PCLW
22nd November, 1977

ANALYTICAL FISH CONTENT

A fish fillet taken from a whole fish which has not been changed in composition in any way by processing can only be regarded as 100% fish - irrespective of its nitrogen content.

However, once the fillet has been processed into say a fish block with or without the incorporation of added water, salt, phosphate, recovered mince etc., one needs some characteristic property of the fish which can be used as an indicatior of hov much fish is present.

The property which has been accepted as being the most suited to analytical measurement and is capable of being related to fish content is its NITROGEN CONTENT.

Various bodies have analysed samples of the more common species and agreed upon an average NITROGEN content or factor to be used for the purposes of analysis. It is accepted of course that in practice the actual nitrogen level will vary considerably over a range owing to seasonal variation, fishing ground, age since capture etc. etc.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| eg. | COD | av. 2.85 | range found | 2.21 | — | 3.20 |
| | HADDOCK | av. 2.95 | range found | 2.33 | — | 3.25 |

Thus the relationship of a measured nitrogen content to the amount of fish apparently present is given by:-

$$\frac{\text{Actual nitrogen found}}{\text{nitrogen factor}} \times 100$$

A typical block analysis would be for example :-

$$\% \text{ nitrogen found} = 2.65$$

$$\% \text{ fish content (cod)} = \frac{2.65}{2.85} \times 100 = 93.0\%$$

To further importance of this type of estimation can be shown by reference to say a fish finger product:-

If the batter and crumb recipe content is 45%, then the raw block content is 55%.

If the block is 100% fish then the fish content of the whole finger will be 100%

But however, if the block only contains say 88% fish, then the fish content of the whole product will be $\frac{55}{100} \times 88 = 48.4$

which in our product would contravene the regulations.

APPENDIX I

METHOD OF ESTIMATING FISH CONTENT

The fish content is calculated from the total Nitrogen.

Total Nitrogen

Method:

Any modification of the original KJELDAHL micro procedure.

The digestion stage is carried out using acid or acid/hydrogen peroxide mixtures in the presence of potassium or sodium sulphate and a metal catalyst.

The ammonia content of the digest can be determined by alkaline steam distillation into a weak acid followed by direct titration with hydrochloric acid or by colourimetric/auto analysis-techniques.

22.11.77

[redacted]

STRICTLY CONFIDENTIAL

DRAFT

ADDENDUM TO PURCHASE SPECIFICATION

[redacted]

1. Fish Species

a) Cod, Codling - Gadus Callarius or
Gadus Morhua

b) Haddock - Gadus Aeglefinus or
Melanogrammus Aeglefinus

2. Fish Content of Block

Analytical Fish Content Minimum 92%

a) Cod $\frac{\% \text{ Nitrogen} \times 100}{\text{Cod Nitrogen Factor } 2.85}$

b) Haddock $\frac{\% \text{ Nitrogen} \times 100}{\text{Haddock Nitrogen Factor } 2.95}$

3. [redacted]

Length 482 $\pm$ 2 mm
Width 254 $\pm$ 2 mm
Depth 63 $\pm$ 2 mm

4. Block Weight

Minimum 16½ lbs (7.5 kilos)

5. Packing

The fish will be laid lengthwise in the carton.

ISSUED BY P W SMYTH
SPECIFICATION CO-ORDINATOR
HR/PWS/JMA/FCLW
22nd November, 1977

## APPENDIX IV

Birds Eye Food Limited co-packer product specification for I.Q.F. cod and haddock fillets.

FCI2

CONFIDENTIAL COPY NO. 2

BIRDS EYE FOODS LIMITED

CO-PACKER PRODUCT SPECIFICATION

# I.Q.F. COD & HADDOCK FILLETS

A. PRODUCT COMPOSITION

B. RAW MATERIALS

C. PROCESSING

D. PHYSICAL ACCEPTANCE CRITERIA

E. LABORATORY ACCEPTANCE CRITERIA

| Amendments | |
|---|---|
| Ref. No. | Page |
| | |
| | |
| | |
| | |
| | |
| | |

RESEARCH & DEVELOPMENT UNIT
DATE EFFECTIVE FROM: 11-12-79.

## A. PRODUCT COMPOSITION

| | % |
|---|---|
| I.Q.F. Cod Fillets | 95.25 |
| Glaze | 4.75 |
| | 100.00 |
| I.Q.F. Haddock Fillets | 95.25 |
| Glaze | 4.75 |
| | 100.00 |

## B. RAW MATERIALS

1. Fish

1.1 Species

Cod

Haddock

1.2 Quality

Grade A (Shewan assessment).

Fresh - Well Bled not gill netted.

## C. PROCESSING

### 1. Preparation of Fish

#### 1.1 Handling

Whole fish should be iced on receipt. All fish must be adequately washed before filleting.

#### 1.2 Filleting

Manually or by machine.

#### 1.3 Trimming

Complete removal of:-

a) All bones except pin bones.
b) Body cavity.
c) Discoloured napes.
d) Belly flaps.
e) Blood spots.

Only fillets having unblemished white flesh should be used.

#### 1.4 Grading

| | Range | Target Average |
|---|---|---|
| Trimmed fillet wt. - | Cod 250 - 750g. | ~~400 g.~~ |
| | Haddock 300 - 750g. | ~~425 g.~~ |

#### 1.5 Freezing

Product should be quick frozen so that the frozen fillets are separate from each other.

If polythene is used during the freezing process it should be of a pigmented type (not clear or white).

#### 1.6 Glazing

Frozen fillets should be uniformly glazed.

Total glaze should not exceed 5% of initial frozen fillet weight.

#### 1.7 Packaging

Packaging materials to be approved by Birds Eye Foods.

cont.

1.8 Cold Store & Distribution

Temperatures

Static storage temp. - 25°C max.
Transit storage temp. - 18°C max.
Temperature cycling should be minimised.

Time

Max. storage before delivery to B.E.F. 1 month.
This may be extended to 3 months with prior agreement of the B.E.F. Co-packer Manager.

## D. PHYSICAL ACCEPTANCE CRITERIA

| | | Defects | Max. Permitted Level of Defective Fillets |
|---|---|---|---|
| 1. | Weight | a) Outside specified wt. range. | 5% |
| | | B) Av wt outside 500 = 75g | NIL |
| 2. | Colour | Significant variation from ideal white colour indicative of inadequate bleeding/poor handling | 5% |
| 3. | Glazing | a) Glaze in excess of 5% by wt. | 0% |
| | | b) Dehydration/inadequate glazing | 0% |
| 4. | Bones | Any bones other than pin bones. | 0% |
| 5. | Parasites | a) Readily visible black Baltic parasites. | 0% |
| | | b) Capsular worms in excess of 3 mm in diameter. | 0% |
| 6. | Belly Flap | Not removed. | 5% |
| 7. | Scales | Haddock only. | |
| | | Excess transfer of scales to flesh of fillet, resulting in an unclean appearance. | 5% |
| 8. | Odour<br>Texture<br>Flavour | Differing from characteristics of species when fresh. | 0% |

CONFIDENTIAL DECEMBER 1979

## E. LABORATORY ACCEPTANCE CRITERIA

## COPACKER IOF COD & HADDOCK FILLETS

1. Bacteriology

Methods to be approved by Birds Eye Foods Ltd.

| | | Counts per g. exceeding | Max. |
|---|---|---|---|
| a) | T.V.C. | 250,000 | 10% |
| b) | T.V.C. | 1,000,000 | 5% |
| c) | T.V.C. | 2,000,000 | Nil |
| d) | V.R.B. | 100 | 10% |
| e) | V.R.B. | 500 | 5% |
| f) | V.R.B. | 2,500 | Nil |
| g) | E. coli | 10 | 10% |
| h) | E. coli | 20 | 5% |
| i) | E. coli | 100 | Nil |
| j) | Staph. | 100 | 10% |
| k) | Staph. | 200 | 5% |
| l) | Staph. | 500 | Nil |

2. Maximum Hypoxanthine level 1.0 µ/g of wet fish (5 days equivalent on ice before freezing).

3. Maximum Cold Store Index (CSI) value 0.2 (Torry Method).

4. Glaze determination A.O.A.C. Method 14.101 (a).

Less than 10% - accept.
10 - 15% - Q.A. Dept. investigation.
More than 15% - reject.

## APPENDIX V

Ross Foods Ltd. product specification for 16 1/2 lb. minced hake block.

[redacted]

PRODUCT SCHEDULE NO:-

PRODUCT TITLE: 16½ lb [redacted] BLOCK. DRAFT

DATE: MARCH '79

---

1) SUPPLIER

---

2) APPROVED PRODUCING PLANTS

---

3) RAW MATERIALS:

3.1 FISH

Hake ( • ) from fishing grounds with a history of no more than a low incidence of parasites and no known incidence of botulism or industrial pollution.

• Merluccius merluccius

3.2 ADDITIVES Phosphates permitted

Ignore!

The addition of additives to the blocks is not permitted.

3.3 PACKAGING

3.21 Waxed carton.

3.22 Outer case with 3, 4 or 5 blocks per case. Only food grade packaging materials shall be used in contact with the fish.

4) SELECTION OF FISH FOR PROCESSING

4.1 FRESHNESS OF FISH

When selecting fish for processing, regard shall be paid to its freshness and in particular:-

4.11 Delay time between catching and processing/freezing.

Cont...../

4) Cont.

4.12 Temperature at which the fish are held.

4.13 Whether the fish are gutted at the time of catching or left gut-in.

Fish MUST be sufficiently fresh immediately prior to processing to ensure that the freshness quality standards (see later) of the finished block are achieved.

5) PROCESSING

5.1 WASHING/FILLETING

Wholefish shall be washed and filleted in accordance with good fish handling practice. The use of chlorinated water (5-8ppm available chlorine) for fish washing is recommended.

5.2 FISH RAW MATERIALS

Only fish fillets or fillet V-Cuts shall be used in the production of the fish mince. Only fillets and V-Cuts of satisfactory quality shall be used - they shall have a fresh raw odour and be free from stale, sour or rancid odours. Samples of cooked fillets or V-Cuts (steam 35 mins) shall be free from off cooked odours (e.g. ammonia) and off flavours (e.g. sourness, bitterness, rancidity). Maximum recommended T.V.B. value for fish at this stage $\leq$15mg N/100g flesh. The use of seriously discoloured fillets is not recommended as they may adversely affect the colour of the resultant mince.

5.3 MINCING OF FILLETS/V-CUTS

The fillets/v-cuts shall be passed through a Baader 695/694 type machine so as to seperate the bones, skin and membrane from the flesh. The minimum size of the perforations in thedrum is 3mm. The machine shall be cleaned out at regular intervals to avoid build up of skin and membrane on the drum. Routine checks shall be carried out on the seperated flesh to ensure freedom from the bones, skin and membrane. The use of fish mince produced by mincing the flesh, skin and bones, as distinct from seperating the flesh from the skin and bones, is not permitted. The use of sawdust (e.g. from bandsaws) is also not permitted.

5. 5.4 HANDLING OF SEPERATED FLESH

Seperated flesh shall be collected in clean containers and handled in accordance with good food handling practice. Delays between collection and processing into frozen blocks shall be kept to a minimum so as to prevent loss of quality and weight (drip loss). Seperated flesh shall also be held at chill temperature (0-4C) to minimise quality loss.

5) Cont.

5.5. PACKI:' BLOCKS

16½lb - owance of drained, seperated flesh shall be packed block cartons contained in block frames. The all ce shall be sufficient to ensure a minimum block t = 16½lb. The seperated flesh shall be suffic: y well drained to avoid the incidence of ice poc in the resultant frozen blocks. The seperat lesh shall be evenly distributed in the block c ns so as to produce blocks of uniform/ accurat ape and dimensions. Care shall be taken to ensu nat the block carton flap is not frozen into t: ock.

5.6 FREEZI:' BLOCKS

The pac blocks are plate frozen (with minimum delay) at a re o ensure that the centre temperature is reduced t 18°C or below within 2 hours. The frozen cartons ocks are removed from the frames, metal detecte and packed (with the minimum of delay) into non-sta outer cases.

* Metal ection

It is r mended that all blocks be subject to metal detecti nd that blocks indicated to contain metal are rej d for defrosting and the metal eliminated.

5.7 CODING

Outer c shall be marked with the producing plant and dat le. The coding system shall consist of numbers, ters of height ¼ 25mm and the method of interpr ion shall be notified to Ross Foods Ltd.

5.8 COLD ST :

The pal' ed blocks are transferred to cold store maintai at - 25°C or below with the minimum of delay. Blocks subsequently transported in refrigerated transpo t 2°C or below so as to maintain the block centre . erature below - 18°C.

6) FINAL PRODUC' NDARD

6.1 Minimum zen block weight = 16½ lb (7.48 kg)

6.2 Block di sions (nominal):- 480 x 252 x 62 mm

Block sh have flat sides and faces and corners shall be squa

6.3 Blocks s ll be free from:-

6.31 Deh ation

6.32 Voi , pitting, rounded edges, bowing or excess free ice.

+1

6) 6.3 Cont.

6.33 Block carton frozen into the fish.

6.34 Areas of significantly bloodstained or discoloured flesh.

6.35 Fins and bones.

6.36 Skin and black membrane.

6.37 Parasites.

6.38 Foreign material including toxic substances (e.g. heavy metals) due to industrial or other pollution.

The aim shall be to produce blocks free from defects as in 6.35/6.36/6.37 above. However, for the purpose of control, the following maximum tolerances shall be applied:-

6.35 BONES AND FINS

| | | |
|---|---|---|
| Dangerous (if eaten) bones/fins | -NIL | |
| Fins (not dangerous) | -1 per block | } 3 per block |
| Large bones (>22mm, not dangerous) | -3 per block | } |
| Medium bones (10-22mm not dangerous) | -5 per block | |
| Hard small bones (<10mm, not dangerous) | -6 per block | |

Fine soft bones <10mm may be ignored.
Small pieces of sharp vertebra may be classed as dangerous or large bones.

6.36 SKIN/BLACK MEMBRANE

| | | |
|---|---|---|
| Fish outer skin | -} 6 sq.cm. aggregate area per block | } * |
| Black membrane (belly lining) | -} 10sq.cm. aggregate area per block | } * |

* Total aggregate area }12 sq.cm per bloc

6.4 FISH EATING QUALITY

Cooked fish (steam for approx. 60 mins from frozen) shall be free from off odours (e.g. amonia, sour, rancid, acidic, etc) and off flavours (e.g. sourness, rancidity, bitternesss). The cooked fish shall have a characteristic hake flavour and some sweetness.

6.5 CHEMICAL ANALYSIS

T.V.B. (total volatile bases) per 100 gm fish flesh
}25 mg N/100g flesh. (fish freshness)

Fishprotein content }..... (N x 6.25) = 15%

See appendix for methods of analysis.

6.6 BACTERIOLOGICAL STANDARD

Recommended maximum levels:-

T.V.C. per gram at 30°C $\leq$ 750,000

Coliforms per gram at 37°C/48hr $\leq$ 1,000

Staphylococcus aureus/gram $\leq$ 100

Salmonella - absent in 25 grams

Clostridia welchii - absent in 0.1 gram

7. QUALITY CONTOL

It is the resposibility of the producing unit to implement control procedures to ensure that the specification standards are achieved.

8. ABBREVIATIONS IN SPECIFICATION

$>10$ = greater than 10
$<10$ = less than 10
$\leq 10$ = not greater than 10
$\geq 10$ = not less than 10

## DETERMINATION OF NITROGEN IN HAKE (KJELDAHL METHOD)

### METHOD

From a thoroughly homogenised fish sample, weigh 1 gr. accurately into the digestion apparatus. Add 12 ml. phosphoric/sulphuric acid mixture, 8 ml. hydrogen peroxide and 2 catalyst tablets, and complete the digestion at ca. 450°C.

The cooled digest is then distilled into 4% boric acid (25 ml.) previously neutralised to screened methyl red indicator, and titrated against 0.100N sulphuric acid.

### CALCULATION

$$\% \text{ Nitrogen} = \frac{\text{Titre} \times 0.14}{\text{Weight}}$$

The accuracy of the standard procedure is checked with Analar ammonium ferrous sulphate heximhydrate crystals as standard; a result of $7.14 \pm 0.07\%$ is acceptable.

### HAKE BLOCK STANDARD

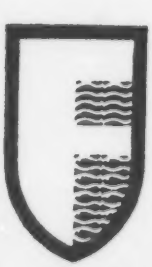
The minimum acceptable N = 2.4%

The minimum acceptable Protein (N x 6.25) = 15%

- - - - - - - - - - - - - - - - - - - -

## APPENDIX VI

Specifications for the purchase of fish: Notes for institutional caterers and their suppliers prepared by the White Fish Authority, Herring Industry Board and the Tory Research Station.



# Specifications for the purchase of fish

Notes for institutional caterers and their suppliers prepared by the White Fish Authority Herring Industry Board Torry Research Station

# INFORMATION AND RECOMMENDATIONS FOR INSTITUTIONAL CATERERS ON THE WFA/HIB/TORRY MODEL SPECIFICATIONS FOR THE PURCHASE OF FISH

The specifications have been drawn up in terms which are, in the main, self explanatory. However, certain sections require amplification and these notes are provided as a means of both advice and explanation and should be read in conjunction with the specification(s).

Certain options are contained in the specifications which are indicated by **bold type**. Please read the following notes which will help you to decide which option is more applicable to your requirements.

The specifications are divided into three sections.

*Section A* refers to the species of fish to which the specification applies.

*Section B* defines the product.

*Section C* specifies the points which may be checked on delivery to ensure that the fish conforms to the standard required. This is a highly technical specification designed to enable trained and qualified staff to make a precise judgement of quality on delivery. It is not suggested that catering officers should attempt to make these very precise judgements themselves.

Various points which arise under separate headings in the specifications themselves are dealt with in the notes below. These notes are by no means comprehensive and the White Fish Authority is able to provide additional information and advice on request. Requests for assistance in this connection should be made to the White Fish Authority, Advisory/Inspection Service, Industrial Development Unit, St Andrew's Dock, Hull HU3 4QE (Telephone: 0482-27837).

## 1. CHOICE OF SPECIES

In all the specifications for white fish, a choice of species is given. This is not meant to imply that your choice should be limited to these species. However in our present state of knowledge we are better able to judge the quality of these than we are with other species. At the same time, we hope that this will not inhibit your choice. Other species are quite often equally acceptable and may be available at a price advantage over the species listed in the specifications.

In this connection it is pointed out that acceptability trials conducted by the WFA using under-prized species of fish in comparison to those more commonly used have shown that quality is, by and large, more important than the species served.

## 2. WET OR FROZEN FISH

Frozen fish, if purchased against the appropriate specification, compares well with wet fish and may, in some circumstances, be more convenient to use and of superior quality. For establishments in the more remote parts of our countryside, the use of frozen fish may be the only effective way of ensuring a place for fish on the menu, especially where merchants find it uneconomical to deliver fairly small quantities of fish on a weekly or fortnightly basis over a large area. The cost of equipping such a kitchen with a small deep freeze cabinet might well be justified by savings effected by bulk delivery of frozen fish. Its provision, in any case, would be no more than anticipating future trends in the use of frozen foods in the catering industry.

When frozen fish is ordered, allowance must of course be made for thawing prior to use (except in the case of convenience products such as fingers and frozen portions). Advice on thawing times and general advice on the use of frozen fish will be found in *Torry Advisory Note No. 42* for caterers which is available on request.

Users of frozen fish, fish portions and fish fingers may also be able to benefit by bulk purchase of these items and keeping them until required, either in a cold storage cabinet on the premises or in space rented from a local cold store.

## 3. SKIN-ON OR SKINLESS?

If a premium is placed on convenience, then skinless fish should be purchased. This avoids unnecessary work and minimises wastage, and is likely to be more economical in the long run. Trials carried out by the Authority have shown that wastage through skinning in kitchens can be as high as 16 per cent. In commercial practice so-called skinless fish is the usual figure.

Many authorities may, in the past, have purchased skin-on fish so that they can check that the correct species ordered is delivered. Modern scientific techniques make it easy to distinguish between different species of fish even when cooked, and the WFA are able to provide information on bodies able to undertake this work in cases of dispute (see also 1).

### 4. SIZE OF FILLETS

As a guide it is recommended that for round fish, such as cod and haddock, it is preferable for ease of preparation to purchase fillets with a minimum weight of 350 g. and a maximum weight of 1.5 kg. This will avoid receiving fillets which are either too small to portion effectively or large fillets which contain large pin bones.

For fish such as whiting, much smaller fillets are acceptable.

### 5. FRESHNESS STANDARDS

The freshness standards incorporated in the specifications have been set as a result of survey work carried out by Torry Research Station and are designed to ensure that only fish of high quality is purchased. Fish of a lower standard of freshness than that specified is known to be less acceptable and is therefore not good value for money.

The freshness as delivered can be checked by taste panel and chemical means (see Advisory Service, below). Here it should be pointed out that the methods of assessing freshness require special skills and should be undertaken only by persons trained in this field. The minimum standards permitted are shown in the specifications. To help to interpret these standards a written description of the cooked flavour is included in the specification for guidance. Where fish is borderline or where catering staff are undecided, qualified experts should be called in.

### 6. PACKAGING

It is recommended that delivery is requested in non-returnable containers as these are hygienic and do not require washing and subsequent storage.

### 7. ADVISORY SERVICES

An advisory service has been set up by the White Fish Authority and its services are available to those institutions purchasing against WFA/HIB/TRS specifications.

The inspection team may be called in by any caterer who has reason to believe that the freshness of the fish, as delivered, is falling short of the standard required. The team will make its assessment on a combination of factors which may include taste panel and chemical methods, the number of bones, the amount of skin, the temperature on delivery, cold storage deterioration, etc. This service is based at Hull and every endeavour will be made to follow up complaints the same day. However it will be appreciated that this will not always be possible, in which case the service should be requested and the next delivery will be inspected. Following a visit from the Advisory/Inspection Service a report will be sent to both purchaser and supplier. Thereafter any complaints should be taken up with the supplier. The Authority will not involve itself except to give technical advice to both parties on request. If the assistance of the Advisory/Inspection Service is required please contact:

The White Fish Authority
Advisory/Inspection Service
Industrial Development Unit
St Andrew's Dock
Hull HU3 4QE
Telephone: 0482-27837

or the Authority's Edinburgh headquarters at: Sea Fisheries House, 10 Young Street, Edinburgh EH2 4JQ. Telephone: 031-225 2515.

# DRAWING UP CONTRACTS

### 1. FIXED PRICE OR FLUCTUATING PRICE?

Fish is still hunted and, therefore, continuity of supply cannot be absolutely guaranteed. Consequently prices are subject to the pressures of supply and demand and are liable to day-to-day fluctuation. Thus there is a risk involved in making either a fixed price contract or a fluctuating price contract.

In a situation where dockside prices are rising and supplies are forecast to fall the risk involved in making a contract based on fluctuating prices is considerable from the purchaser's point of view. Equally, however, anyone making a fixed price contract must expect the supplier to include in the price two elements, over and above the current price of the fish, (1) an allowance for the price rises he expects to take place over the period for which the contract is to run, (2) an allowance for the risk involved in fixing now the price he is to receive over the period of the contract, even though he has already allowed something under (1) to cover estimated price increases. He has also to cover himself against the possibility that he has underestimated these increases. On a fluctuating price contract the purchaser would expect to pay for increases at the dockside as they occurred but he would not expect to pay the risk element (2). Instead he would bear the risk himself insofar as he would have committed himself to purchasing a certain quantity of fish, whatever happened to prices.

On balance, the WFA considers that fixed price contracts with periodic price reviews will best meet the requirements of institutional caterers and it is recommended that contracts should be negotiated on this basis ensuring that the term between price reviews does not exceed three months.

In this connection it will be appreciated that there may be some advantage in ordering frozen

fish supplies since these are not necessarily subject to the same price fluctuations.

In times of acute shortage or sharp price rise of a particular species, for instance cod or haddock, it may be impossible for the supplier to meet the contract and supplies officers should make allowance for this, permitting the substitution of approved alternative species when such market conditions prevail.

A safeguard for purchasers making fixed price contracts, against quality cuts when the dockside prices rise unexpectedly, is to build specifications of quality into the contract. The White Fish Authority/Herring Industry Board/Torry specifications can safeguard quality on delivery at your establishment.

## 2. CONDITIONS OF CONTRACT

The following points should be considered when drawing up tender documents since mention of these (where applicable) may be instrumental in securing cost benefits for the organisation and will help specify the requirements more exactly.

1. Suppliers should be asked to quote firm prices (for the period of the contract) on the tender form. They should also be asked to note that such quotes should include the cost of delivery to the units. It should be noted that the majority of UK landings is marketed through Producer Organisations empowered, under EEC regulations, to operate a Withdrawal Price Scheme. As the withdrawal price levels are reviewed on a regular basis, there is need to include provision for the re-negotiation of those quoted prices affected by a revision occurring within the contract period.

2. The purchaser should reserve the right to divide the contract and not be bound to accept the lowest, or any tender.

3. The purchaser should reserve the right to cancel or suspend the contract if there is a breach of conditions, *e.g.* poor quality.

4. The point should be made that the quantities given in the list of units/kitchens are estimates and that more or less may be ordered.

5. Suppliers should be asked to state (on the tender form), the latest time (before actual delivery) they will be prepared to accept telephoned orders from individual units.

6. Suppliers should be requested to state (on the tender form) whether they are prepared to offer discount, or quote preferential prices for the delivery of frozen fish in bulk (an organisation with access to a municipal or central cold store may elect to operate on this basis). If so, the suppliers should be asked to specify minimum quantities qualifying for discount.

7. Suppliers should be requested to state (on the tender form) whether they are prepared to offer discount, or quote preferential prices for fish delivered to units at "off peak" times — *e.g.* delivery on days other than Thursdays or Fridays. If so, they should be asked to clarify their interpretation of "off peak."

8. Although an organisation may be inviting tenders specifically for one commodity (*e.g.* cod fillets — skinless), it may be considered worthwhile asking the supplier to include quotes for other species on the tender form. Sufficient space should be allocated under each particular product description to allow quotes for a number of species and size ranges.

The purchaser in addition should state:

(a) the name and address of each kitchen where delivery is required including precisely the point where the delivery is to be made.

(b) telephone numbers.

(c) the total weight in kilogrammes required for the period of the contract.

(d) any special delivery times required for individual units.

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## 3. USING THE SPECIFICATIONS

The following points should be considered when using the specifications:

(1) The specifications for the fish products required should be tailored to suit the purchaser's own needs by careful selection of the species required from the options given in Section A. Consideration should then be given to Section C where a number of options exist:

(a) skin-on or skinless fillets;

(b) maximum and minimum sizes of fillets, average weight of portions or fish flesh content of fish fingers (or battered and crumbed fish portions);

(c) packaging (on wet fish products only).

Only when the options have been exercised should the specification(s) be appended as a condition of contract.

## SUGGESTED TENDER FORM FOR THE SUPPLY OF FISH AND FISH PRODUCTS

The following is a suggested format for your tender document. As it is laid out here it is all embracing covering most product forms. Clearly a single catering unit may only require one species of fish in a single product form and it will be appreciated that the tender form can be considerably condensed to cover your own requirements only.

The **bold type** included in the description of most products indicates options open to purchasing authorities. Please delete as required.

| (To be filled in by purchasing officer) | | | (To be filled in by the supplier) | | |
|---|---|---|---|---|---|
| Description of products | Species required | Relevant specification No. | Species offered | Size range offered (where applicable) | Price Unit |
| Wet fillets of white fish **skinless skin-on** | | 1 | | | per |
| Frozen fillets of white fish **skinless skin-on** | | 2 | | | |
| Wet fillet portions cut from single fillets **skinless skin-on** | | 3 | | | |
| Frozen fillet portions cut from single fillets **skinless skin-on** | | 4 | | | |
| Block fillets (cutlets) of white fish (unfrozen) **skinless skin-on** | | 5 | | | |
| Block fillets (cutlets) of white fish (frozen) **skinless skin-on** | | 6 | | | |
| Frozen portions of white fish — sawn from laminated blocks | | 7 | | | |
| Frozen portions of white fish — battered and crumbed | | 8 | | | |
| White fish fingers (frozen) **battered battered and crumbed** | | 9 | | | |
| **Fillets block fillets** of smoked white fish (unfrozen) | | 10 | | | |
| **Fillets block fillets** of smoked white fish (frozen) | | 11 | | | |
| Herrings — (whole), **fresh frozen** | | 12/13 | | | |
| Herrings — boned (butterfly fillets), **fresh frozen** | | 12/13 | | | |
| Herrings — boned (single fillets), **fresh frozen** | | 12/13 | | | |
| Kippers, **fresh frozen** | | 14/15 | | | |
| Kippers — boned, **fresh frozen** | | 14/15 | | | |
| Kippers — fillets, **fresh frozen** | | 14/15 | | | |

*Additional information (for completion by supplier)*

(a) Less discount, if paid within days.

(b) Details of any terms offered for "off peak" deliveries. Specify "off peak" .....

(c) Details of any terms offered for bulk delivery of frozen fish. Specify minimum delivery quantity .....

(d) Prepared to accept telephoned orders from individual units up to hours before delivery.

Date ..... Signed ..... Address .....

.....

**Should any difficulty arise either in drawing up the tender documents or in relation to the products supplied, advice should be sought from the WFA Advisory/Inspection Service, St Andrew's Dock, Hull HU3 4QE. Telephone: 0482-27837, or the WFA officer who will be known to you.**

# Index to Model Purchase Specifications


No. 1: Wet fillets of white fish.

No. 2: Frozen fillets of white fish.

No. 3: Wet fillet portions cut from single fillets.

No. 4: Frozen fillet portions cut from single fillets.

No. 5: Block fillets (cutlets) of unfrozen white fish.

No. 6: Block fillets (cutlets) of frozen white fish.

No. 7: Frozen portions of white fish.

No. 8: Frozen portions of white fish (battered and crumbed)

No. 9: White fish fingers (battered and crumbed or battered only).

No. 10: Fillets/block fillets of unfrozen smoked white fish.

No. 11: Fillets/block fillets of frozen smoked white fish.

No. 12: Unfrozen whole herring and boned herring.

No. 13: Frozen whole herring and boned herring.

No. 14: Kippers, boned kippers and kipper fillets (unfrozen).

No. 15: Frozen kippers and kipper fillets.

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 1: WET FILLETS OF WHITE FISH

## A. Scope of this specification

This specification applies to whole fillets (both fresh and ex-frozen) of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Plaice (*Pleuronectes platessa*)
Lemon Sole (*Microstomus kitt*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)
Dover Sole (*Solea solea*)

## B. Definition of fillet

Fillets are slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap** — The fish shall be free of bones except pin bones. The fish shall be supplied **skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.)** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillets** — Individual fillets must be not less than ☐ g. (☐ oz.), or more than ☐ kg. (☐ lb.) each in weight. (Insert required weights.)

5. **Eating quality** — The fillets must not gape or exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

   At the time of delivery the fish must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   Where thawed frozen fish is delivered under this contract it must be free of the following on cooking:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage deterioration.
   3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

6. **Packaging**

This section contains two major packaging options, and one of them should be selected for use in the final specification:

1st Option

**Fish fillets must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

2nd Option

**Fish fillets may be delivered in either non-returnable or returnable containers. If the former, they must be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

**Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material, *e.g.* aluminium or plastic.**

Any container used for the delivery of fish fillets must be constructed of such material that taint is not imparted to the fillets. Where ice is used, the fillets must be separated from this by suitable immediate wrapping which resists tearing after contact with ice and moisture. The fish must not be subject to bruising caused by pressure of ice on packaged fillets during distribution.

**Fillets should be packaged for delivery in units of ☐ kg. (☐ lb.).**

7. **Temperature at delivery**

The temperature of the fish fillets at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 2: FROZEN FILLETS OF WHITE FISH

## A. Scope of this specification

This specification applies to whole fillets purchased frozen, of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Plaice (*Pleuronectes platessa*)
Lemon Sole (*Microstomus kitt*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)
Dover Sole (*Solea solea*)

## B. Definition of fillet

Fillets are slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap** — The fish shall be free of bones except pin bones. The fish shall be supplied **skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.)** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillets** — Individual fillets must be not less than ☐ g. (☐ oz.), or more than ☐ kg. (☐ lb.) each in weight. (Insert required weights.)

5. **Eating quality** — The fillets must not gape or exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

   At the time of delivery the fish must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   The fillets on cooking must be free of the following:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage deterioration.
   3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Packaging**

The frozen fish fillets must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation.

Any container used for the delivery of frozen fish fillets must be constructed of such material that taint is not imparted to the fillets.

**Fillets should be packaged for delivery in units of ☐ kg. (☐ lb.).**

**7. Temperature at delivery**

The temperature of the frozen fish fillets at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**8. Freezing and cold-storage**

Freezing must be carried out according to the WFA code of practice for quick freezing. Storage prior to delivery should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 3: WET FILLET PORTIONS CUT FROM SINGLE FILLETS

## A. Scope of this specification

This specification applies to fresh and ex-frozen fillet portions cut from single fillets of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)

## B. Definition of product

Wet fillet portions are sections of wet fish of a specific size cut from single fillets of white fish. Fillets from which the portions are cut are slices of fish muscle which have been removed from the carcass by cuts made parallel to the back-bone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)**

Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap**

The fish shall be free of bones except pin bones. The fish shall be supplied **skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.)** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites**

The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillet portions**

The average weight of portions shall be ☐ g. (☐ oz.), (insert required weight) but there is a tolerance for individual portions of plus or minus 14 g. ($\frac{1}{2}$ oz.).

5. **Eating quality**

The fillet portions must not gape or exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

At the time of delivery the fish must meet the following freshness standard:

A minimum score of 6 in the Torry taste panel system for assessing freshness.

Where portions cut from thawed frozen fish are delivered under this contract they should be free of the following:

1 Objectionable cold-storage odours and flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Packaging**

This section contains two major packaging options, and one of them should be selected for use in the final specification:

**1st Option**

**Fish portions must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

**2nd Option**

**Fish portions may be delivered in either non-returnable or returnable containers. If the former, they must be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

**Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material, *e.g.* aluminium or plastic.**

Any container used for the delivery of fish portions must be constructed of such material that taint is not imparted to the fillets. Where ice is used, the portions must be separated from this by suitable immediate wrapping which resists tearing after contact with ice and moisture. The fish must not be subject to bruising caused by pressure of ice on packaged portions during distribution.

**Portions should be packaged for delivery in units of ☐ kg. (☐ lb.).**

**7. Temperature at delivery**

The temperature of the fish portions at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 4: FROZEN FILLET PORTIONS CUT FROM SINGLE FILLETS

## A. Scope of this specification

This specification applies to frozen fillet portions cut from single fillets of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)

## B. Definition of product

Frozen fillet portions are sections of fish of a specific size cut from single fillets of white fish and then quick frozen. Fillets from which the portions are cut are slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)**

Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap**

The fish shall be free of bones except pin bones. The fish shall be supplied **skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.)** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites**

The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillet portions**

The average weight of portions shall be ☐ g. (☐ oz.), (insert required weight) but there is a tolerance for individual portions of plus or minus 14 g. (½ oz.).

5. **Eating quality**

The fillet portions must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish), nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

At the time of delivery the fish must meet the following freshness standard:

A minimum score of 6 in the Torry taste panel system for assessing freshness.

The fillet portions, on cooking must be free of the following:

1 Objectionable cold-storage odours and flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Packaging**

The frozen fillet portions must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation.

Any container used for the delivery of frozen fillet portions must be constructed of such material that taint is not imparted to the fish.

**Fillet portions should be packaged for delivery in units of ☐ kg. (☐ lb.).**

**7. Temperature at delivery**

The temperature of the frozen portions cut from single fillets at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**8. Freezing and cold-storage**

Freezing must be carried out according to the WFA code of practice for quick freezing. Storage should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 5: BLOCK FILLETS (CUTLETS) OF UNFROZEN WHITE FISH

## A. Scope of this specification

This specification applies to block fillets (both fresh and ex-frozen) of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting *(Merlangius merlangus)*
South Atlantic Hake (*Merluccius sp.*)

## B. Definition of block fillets

Block fillets are paired fillets joined down the back from which all bones, including the backbone but excepting the pin bones, have been removed. For this purpose fillets are defined as slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap** — The fish shall be free of bones except pin bones. The fish shall be supplied skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.) No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of block fillets** — Individual block fillets must be not less than ☐ g. (☐ lb.), each in weight. (Insert required weights.)

5. **Eating quality** — The block fillets must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

   At the time of delivery the fish must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   Where thawed frozen fish is delivered under this contract it must be free of the following on cooking:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage deterioration.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Packaging**

This section contains two major packaging options, and one of them should be selected for use in the final specification :

**1st Option**

**The block fillets must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

**2nd Option**

**The block fillets may be delivered in either non-returnable or returnable containers. If the former, they must be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is not water absorbent.**

**Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material, *e.g.* aluminium or plastic.**

Any container used for the delivery of block fillets should be constructed of such material that taint is not imparted to the fish. Where ice is used, the fish must be separated from this by suitable immediate wrapping which resists tearing after contact with ice and moisture. The fish must not be subject to bruising caused by pressure of ice on the packaged block fillets during distribution.

**7. Temperature at delivery**

The temperature of the block fillets at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 6: BLOCK FILLETS (CUTLETS) OF FROZEN WHITE FISH

## A. Scope of this specification

This specification applies to block fillets purchased frozen, of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
South Atlantic Hake (*Merluccius sp.*)

## B. Definition of block fillets

Frozen block fillets are paired fillets joined down the back from which all bones, including the backbone, but excepting the pin bones, have been removed. The paired fillets are then quick frozen. For this purpose fillets are defined as slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

2. **Bones, skin and belly lining/flap** — The fish shall be free of bones except pin bones. The fish shall be supplied skin-on/skinless. (Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.) No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of block fillets** — Individual block fillets must be not less than ☐ g. (☐ lb.) in weight. (Insert required weights.)

5. **Eating quality** — The block fillets must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

   At the time of delivery the fish must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   The fillets on cooking must be free of the following:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage detenoration.



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In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Packaging**

The frozen block fillets must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation.

Any container used for the delivery of frozen block fillets must be constructed of such material that taint is not imparted to the fillets.

**7. Temperature at delivery**

The temperature of the frozen block fillets at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**8. Freezing and cold-storage**

Freezing must be carried out according to the WFA code of practice for quick freezing. Storage should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 7: FROZEN PORTIONS OF WHITE FISH

## A. Scope of this specification

This specification applies to frozen portions of white fish of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Plaice (*Pleuronectes platessa*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)

## B. Definition of frozen portions of white fish

Frozen portions of white fish are uniform pieces cut from frozen laminated blocks of skinless and boneless fish fillets. No more than 10% of minced fish may be added during manufacture of the laminated block.

For the purpose of the above definition, fillets are defined as slices of fish which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones and all skin have been removed. Discoloured flesh must be trimmed from the fillets.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Species** — The laminated blocks from which the portions are manufactured shall consist only of the flesh of a single designated species.

2. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

3. **Bones, skin and belly lining/flap** — There shall be no bones capable of piercing the soft palate. There is a tolerance of four pin bones or other minor bones and up to 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit of portions. No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. An excessive amount of belly flap must not be present.

4. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

5. **Size** — The average weight of portions shall be □ g. (□ lb.) but there is a tolerance for individual portions of plus or minus 14 g. ($\frac{1}{2}$ oz.).

6. **Eating quality** — The portions must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

   At the time of delivery the fish must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

The portions on cooking must be free of the following:

1 Objectionable cold-storage odours and flavours.

2 Toughness and dryness resulting from cold-storage deterioration.

3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**7. Packaging**

The frozen portions must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation. The frozen portions should also be wrapped so that individual portions may be removed from the package without thawing.

Any container used for the delivery of frozen portions must be constructed of such material that taint is not imparted to the fish.

Each package of portions delivered shall be:

(a) Clearly marked with the name of the product as well as the species used in manufacture.

(b) Clearly marked with the net weight of individual portions and the number of portions in the package.

(c) Clearly marked with the words "IF THAWED DO NOT REFREEZE".

**8. Temperature at delivery**

The temperature of the fish portions at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**9. Freezing and cold-storage**

The portions must be quick frozen according to the WFA code of practice for quick freezing. Storage prior to delivery should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 8: FROZEN PORTIONS OF WHITE FISH (BATTERED AND CRUMBED)

## A. Scope of this specification

This specification applies to the battered and crumbed frozen portions of white fish of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Plaice (*Pleuronectes platessa*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)
Greenland Halibut (*Reinhardtius hippoglossoides*)

## B. Definition of frozen portions of white fish (battered and crumbed)

Frozen portions of white fish are uniform pieces cut from frozen laminated blocks of skinless and boneless fish fillets. No more than 10% of minced fish may be added during manufacture of the laminated block. The cut pieces are subsequently coated in batter and breadcrumbs and may be partially cooked by immersion in hot oil and then quick frozen.

For the purpose of the above definition, fillets are defined as slices of fish which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones and all skin have been removed. Discoloured flesh must be trimmed from the fillets.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Species** — The laminated blocks from which the portions are manufactured shall consist only of the flesh of a single designated species.

2. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

3. **Bones, skin and belly lining/flap** — There shall be no bones capable of piercing the soft palate. There is a tolerance of four pin bones or other minor bones and up to 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit of *fish flesh* (after the batter and crumb has been removed). No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit of *fish flesh*. An excessive amount of belly flap must not be present.

4. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit of *fish flesh* (after the batter and crumb has been removed). No other parasites are permitted.

5. **Size** — The average weight of *fish flesh* contained in the portions shall be ☐ g. (☐ oz.) and there is a tolerance for the weight of *fish flesh* contained in the individual portions of plus or minus 14 g. (½ oz.) per portion.

**6. Eating quality**

The portions must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

At the time of delivery the fish must meet the following freshness standard :

A minimum score of 6 in the Torry taste panel system for assessing freshness.

The portions on cooking must be free of the following :

1 Objectionable cold-storage odours and flavours.

2 Toughness and dryness resulting from cold-storage deterioration.

3 Gelatinous texture.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**7. Packaging**

The frozen portions must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation. The frozen portions should also be wrapped so that individual portions may be removed without thawing.

Any container used for the delivery of the frozen portions should be constructed of such material that taint is not imparted to the fish.

Each package of frozen portions delivered shall be :

(a) Clearly marked with the name of the product as well as the species used in manufacture.

(b) Clearly marked with the nett weight of individual portions and the number of portions in the package.

(c) Clearly marked with the words "IF THAWED DO NOT REFREEZE".

**8. Temperature at delivery**

The temperature of the fish portions at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**9. Freezing and cold-storage**

The portions must be quick frozen according to the WFA code of practice for quick freezing. Storage prior to delivery should be at minus 18 deg. C. (0 deg. F ) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

# No. 9: WHITE FISH FINGERS (BATTERED AND CRUMBED OR BATTERED ONLY)

## A. Scope of this specification

This specification applies to frozen fingers of white fish of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Whiting (*Merlangius merlangus*)
Saithe (*Pollachius virens*)
Redfish (*Sebastes sp.*)
South Atlantic Hake (*Merluccius sp.*)

## B. Definition of white fish fingers

White fish fingers are rectangular pieces cut from frozen laminated blocks of skinless and boneless fish fillets, or fillet pieces, or shredded but not minced fillet. If fillet pieces are used, no more than 10% by weight of minced fish may be added during manufacture of the laminated block. The cut pieces of frozen fish are subsequently coated in batter only or batter & breadcrumbs and may be partially cooked by immersion in hot oil and then quick frozen.

For the purpose of the above definition, fillets are defined as slices of fish which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones and all skin have been removed. Discoloured flesh must be trimmed from the fillets.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Species** — The laminated blocks from which the fingers are manufactured shall consist only of the flesh of a single designated species.

2. **Colour (blemishes)** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality shall be absent.

3. **Bones, skin and belly lining/flap** — There shall be no bones capable of piercing the soft palate. There is a tolerance of four pin bones or other minor bones and up to 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit of *fish flesh* (after the batter and crumb has been removed). No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit of *fish flesh*. An excessive amount of belly flap must not be present.

4. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit of *fish flesh* (after the batter and crumb has been removed). No other parasites are permitted.

5. **Size** — The average weight of *fish flesh* contained in the fingers must be ☐ g. (☐ oz.) and there is a tolerance for the weight of *fish flesh* contained in the individual fingers of plus or minus 2 g.

6. **Eating quality** — The fish contained in the fingers must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must it contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

The fish contained in the fingers must meet the following freshness standard.

A minimum score of 6 in the Torry taste panel system for assessing freshness.

The fingers on cooking must be free of the following:

1 Objectionable cold-storage odours and flavours.

2 Toughness and dryness resulting from cold-storage deterioration.

In the case of fingers made from cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**7. Packaging**

The fingers must be wrapped so that they are protected from bacteriological and other contamination, and from dehydration during storage and transportation. The fingers should also be wrapped so that individual fingers may be removed from the bulk of the package without thawing.

Any container used for the delivery of fish fingers should be constructed of such material that taint is not imparted to the fingers.

Each package of fingers delivered shall be:

(a) Clearly marked with the name of the product as well as the species used in manufacture.

(b) Clearly marked with the number of fingers in the package and the average *fish flesh* content per finger.

(c) Clearly marked with the words "IF THAWED DO NOT REFREEZE".

**8. Temperature at delivery**

The temperature of the fish fingers at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**9. Freezing and cold-storage**

The fingers must be quick frozen according to the WFA code of practice for quick freezing. Storage prior to delivery should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 10: FILLETS/BLOCK FILLETS OF UNFROZEN SMOKED WHITE FISH

## A. Scope of this specification

This specification applies to smoked whole fillets/block fillets of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Saithe (*Pollachius virens*)
Whiting (*Merlangius merlangus*)
South Atlantic Hake (*Merluccius sp.*)

## B. Definition of product

Smoked fillets are slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed. Block fillets are paired fillets joined down the back. The fillets are brined, may be coloured with permitted colouring materials, and smoked in wood smoke. Smoked fillets of cod are to be skinless. Smoked fillets of haddock are to be skin-on.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Appearance**
   **(a) Blemishes** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality must have been trimmed from the fillets before smoking. Smuts and moulds must be absent.

   **(b) Colour** — The smoked fillets may be coloured with permitted colouring material.

2. **Bones, skin and belly lining/flap** — The fish shall be free of bones except pin bones. **Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillets** — Individual fillets must be not less than ☐ **g.** (☐ **oz.**), **or more than** ☐ **kg.** (☐ **lb.**) each in weight. (Insert required weights.)

5. **Quality of raw material** — At the time of preparation of the smoked fish, the freshness of the raw material must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   If thawed frozen fish is used for the production of smoked fish it must be free of the following:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage deterioration.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

**6. Eating quality of smoked fillets**

At the time of delivery the product must have a pleasant mild fresh smoked flavour and must contain no more than 2.5% by weight of sodium chloride. There must be no acrid, resinous or musty odours. It must be free from stale odours and flavours and must exhibit no signs of sourness whatsoever.

The texture of the smoked fish should be firm and springy to the touch.

The smoked fillets must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

**7. Packaging**

This section contains two major packaging options, and one of them should be selected for use in the final specification:

The product shall be bulk wrapped in waxed paper, grease-proof paper, polyester materials, cellulose film or other suitable material.

**1st Option**

**Smoked fish fillets must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, polystyrene or other suitable material.**

**2nd Option**

**Smoked fish fillets may be delivered in either non-returnable or returnable containers, if the former, they must be purpose made boxes equipped with lids. The material of construction may be of wood, fibreboard, polystyrene or other suitable material. Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material, *e.g.* aluminium or plastic.**

Any container used for the delivery of smoked fish fillets must be constructed of such material so that taint is not imparted to the fillets.

**8. Temperature at delivery**

The temperature of the smoked fillets at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

WHITE FISH AUTHORITY/TORRY
MODEL PURCHASE SPECIFICATION

# No. 11: FILLETS/BLOCK FILLETS OF FROZEN SMOKED WHITE FISH

## A. Scope of this specification

This specification applies to frozen smoked whole fillets/block fillets of the following species:

Cod (*Gadus morhua*)
Haddock (*Melanogrammus aeglefinus*)
Saithe (*Pollachius virens*)
Whiting (*Merlangius merlangus*)
South Atlantic Hake (*Merluccius sp.*)

## B. Definition of product

Frozen smoked fillets are slices of fish muscle which have been removed from the carcass by cuts made parallel to the backbone and from which all internal organs, head, fins, bones (other than pin bones) and substantially all discoloured flesh have been removed. Block fillets are paired fillets joined down the back. The fillets are brined, may be coloured with permitted colouring materials and smoked in wood smoke then quick frozen. Smoked fillets of cod are to be skinless. Smoked fillets of haddock are to be skin-on.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Appearance**
   **(a) Blemishes** — Bruises and blood clots and other localised discolouration which materially affect the appearance of the fish and/or eating quality must have been trimmed from the fillets before smoking. Smuts and moulds must be absent.

   **(b) Colour** — The smoked fillets may be coloured with permitted colouring material.

2. **Bones, skin and belly lining, flap** — The fish shall be free of bones except pin bones. **Fish which is deemed skinless should contain no more than 10 sq. cm. of skin per 3·2 kg. (7 lb.) unit.** No more than 15 sq. cm. of belly lining shall be permitted per 3·2 kg. unit. An excessive amount of belly flap must not be present.

3. **Worms and other parasites** — The maximum tolerance for nematode worms is three worms per 3·2 kg. (7 lb.) unit. No other parasites are permitted.

4. **Size of fillets** — Individual fillets must not be less than ☐ g. (☐ oz.) or more than ☐ kg. (☐ lb.) in weight. (Insert required weights.)

5. **Quality of raw material** — At the time of preparation of the smoked fish, the freshness of the raw material must meet the following freshness standard:

   A minimum score of 6 in the Torry taste panel system for assessing freshness.

   If thawed frozen fish is used for the production of smoked fish it must be free of the following:

   1 Objectionable cold-storage odours and flavours.
   2 Toughness and dryness resulting from cold-storage deterioration.

In the case of cod and haddock the values indicated below on the Torry taste panel system for assessing cold-storage deterioration must not be exceeded.

| | |
|---|---|
| Cold-storage flavour | 3.0 |
| Firmness | 4.5 |
| Dryness | 3.0 |

6. **Eating quality of smoked fillets**

After thawing the product must have a pleasant mild fresh smoked flavour and must contain no more than 2.5% by weight of sodium chloride. There must be no acrid, resinous or musty odours, it must be free from stale odours and flavours and must exhibit no signs of sourness whatsoever.

The texture of the thawed smoked fillets should be firm and springy to the touch.

The smoked fillets must not exhibit abnormal textural faults (*e.g.* due to the use of spent or starved fish) nor must they contain abnormal intrinsic odours or flavours such as "weedy" or "diesel" flavours common in fish from certain grounds at certain seasons.

7. **Packaging**

The product must be wrapped so that it is protected from bacteriological and other contamination and from dehydration under storage and transportation.

Any container used for the delivery of frozen smoked fillets must be constructed of such material that taint is not imparted to the fillets.

**Fillets should be packaged for delivery in units of ⎕ kg. (⎕ lb.).**

8. **Temperature at delivery**

The temperature of the frozen smoked fillets at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

9. **Freezing and cold-storage**

Freezing must be carried out according to the WFA code of practice for quick freezing. Storage prior to delivery should be at minus 18 deg. C. (0 deg. F.) for no longer than three months. Longer periods of storage must be at minus 29 deg. C. (minus 20 deg. F.). Cold-storage temperatures must not be allowed to fluctuate.

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

# No. 12: UNFROZEN WHOLE HERRING AND BONED HERRING

## A. Scope of this specification

This specification applies to whole herring and boned herring purchased in the unfrozen state.

## B. Definition of product

Whole herring are the whole ungutted head-on fish of the species *Clupea harengus*. Boned herring are the split fish, prepared by the removal of the head, guts and backbone, but still retaining a proportion of the chest or barrel bone and the fin bones, leaving a double fillet joining down the dorsal surface.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Product appearance**

The appearance of the whole fish skin must be bright, the eyes must not be sunken and the belly wall must be intact or only slightly perforated. The skin of boned fish, likewise, should have a bright appearance. If ex-frozen material is supplied, some loss of this bright appearance is allowable. The eyes of the whole fish may also be somewhat sunken.

2. **Condition**

Fish used must not be spent, and must have at least 6% fat content.

3. **Eating quality**

At the time of delivery the herring must meet the following freshness standard:

A score of no higher than 3 in the Torry taste panel system for assessing freshness.

Where herring or boned herring prepared from thawed frozen raw materials is delivered it must be free of the following:

1 Rancid flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Yellow discolouration.

The peroxide value must be no greater than 3.

4. **Packaging**

**1st Option**

**Whole herring or boned herring must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is non water absorbent.**

**2nd Option**

**Whole herring fillets or boned herring may be delivered in either non-returnable or returnable containers. If the former, they must be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other material which is non water absorbent. Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material, *e.g.* aluminium or plastic.**

Any container used for the delivery of herring must be constructed of such material that taint is not imparted to the fish. Where ice is used, the fish must be separated from this by suitable immediate wrapping which resists tearing after contact with ice and moisture. The fish must not be subject to bruising caused by pressure of ice on packaged fish during distribution.

**The fish should be packaged for delivery in units of ☐ kg. (☐ lb.).**

5. **Temperature at delivery**

The temperature of the herring at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

HERRING INDUSTRY BOARD/TORRY
MODEL PURCHASE SPECIFICATION

# No. 13: FROZEN WHOLE HERRING AND BONED HERRING

## A. Scope of this specification

This specification applies to whole herring and boned herring purchased in the frozen state.

## B. Definition of product

Whole herring are the whole ungutted head-on fish of the species *Clupea harengus*. Boned herring are the split fish, prepared by the removal of the head, guts and backbone, but still retaining a proportion of the chest or barrel bone and the fin bones, leaving a double fillet joining down the dorsal surface.

## C. Specification of product as delivered

The fish on delivery shall meet all of the following requirements:

1. **Product appearance**

On thawing the belly wall must be intact or only slightly perforated. Compared to the fresh condition, freezing causes some loss of skin brightness and the eyes become somewhat sunken. However, regard to the condition of the belly wall will give some guide as to the initial freshness of the raw material.

2. **Condition**

Fish used must not be spent, and must have at least 6% fat content.

3. **Eating quality**

At the time of delivery the herring must meet the following freshness standard:

A score of no higher than 3 in the Torry taste panel system for assessing freshness.

Where herring or boned herring is delivered it must be free of the following:

1 Rancid flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Yellow discolouration.

The peroxide value must be no greater than 3.

4. **Packaging**

The frozen herring must be wrapped so that they are protected from bacteriological and other contamination and from dehydration under storage and transportation.

Any container used for the delivery of frozen herring must be constructed of such material that taint is not imparted to the fish.

**The fish should be packaged for delivery in units of ☐ kg. (☐ lb.).**

5. **Temperature at delivery**

The temperature of the frozen herring at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

# No. 14: KIPPERS, BONED KIPPERS AND KIPPER FILLETS (UNFROZEN)

## A. Scope of this specification

This specification applies to kippers, boned kippers and kipper fillets prepared from the species *Clupea harengus* and presented in the unfrozen condition.

## B. Definition of product

Kippers are whole herring split down the dorsal surface, through the head and from which the guts and gills have been removed. The belly walls, head, backbone and fin bones are retained. The fish is subsequently brined, may be coloured with permitted colouring materials and smoked in wood smoke.

Boned kippers are made from split herring prepared by the removal of the head, guts and backbone but still retaining a proportion of the chest or barrel bones and fin bones thus leaving a double fillet joined down the dorsal surface. Such boned herring are then brined, may be coloured with permitted colouring material and smoked with wood smoke.

Kipper fillets are prepared from boned kippers by the separation of the two fillets and the removal of the dorsal fin.

## C. Specification of product as delivered

**1. Appearance**

The appearance of the product must be glossy and should not exhibit any raggedness. Kidney blood along the backbone, gut pieces and swim bladder must not be present. **Kipper products may be coloured with permitted colouring materials/must not be artificially coloured.**

**2. Quality of raw material**

At the time of preparation of the kippers, boned kippers or kipper fillets, the freshness of the raw material must meet the following freshness standard:

A score of no higher than 3 in the Torry taste panel system for assessing freshness.

Where thawed frozen fish is used for the production of kippers, boned kippers or kipper fillets it must be free of the following:

1 Rancid flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Yellow discolouration.

**3. Eating quality**

At the time of delivery, kippers, boned kippers and kipper fillets must have a pleasant smoky odour and flavour.

The salt content must be between 1.8 and 3.0%. The fish must be free from stale odours and flavours and must show no signs whatsoever of sourness, faecal, or mouldy odours.

**4. Cold-store deterioration**

If the raw material for kippering or the kippers have been frozen prior to delivery in the thawed state, the product as supplied must not be rancid. The Peroxide value must not be greater than 3.

**5. Packaging**

The kipper products shall be bulk wrapped in wax paper, greaseproof paper, polyester or cellulose film or other suitable material.

1st Option

**Kippers must be delivered in non-returnable containers. These shall be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other suitable material which is non water absorbent.**

2nd Option

**Kipper products may be delivered in either non-returnable or returnable containers. If the former, they must be purpose made boxes equipped with lids. The material of construction may be wood, fibreboard, waxed cardboard, expanded polystyrene or other material which is non water absorbent. Where returnable containers are used, they must be purpose made, equipped with lids and constructed of washable, non-porous material,** *e.g.* **aluminium or plastic.**

Any container used for the delivery of kipper products must be constructed of such material that taint is not imparted to the fish. Where ice is used, the fish must be separated from this by suitable immediate wrapping which resists tearing after contact with ice and moisture. The fish must not be subject to bruising caused by pressure of ice on packaged fish during distribution.

**The fish should be packaged for delivery in units of ☐ kg. (☐ lb.).**

6. Temperature at delivery

The temperature of the kipper products at the time of delivery should be in the range 0 deg. C. (32 deg. F.) to 4 deg. C. (39 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

HERRING INDUSTRY BOARD/TORRY
MODEL PURCHASE SPECIFICATION

# No. 15: FROZEN KIPPERS AND KIPPER FILLETS

## A. Scope of this specification

This specification applies to kippers, boned kippers and kipper fillets prepared from the species *Clupea harengus* and presented in the frozen condition.

## B. Definition of product

Kippers are whole herring split down the dorsal surface, through the head and from which the guts and gills have been removed. The belly walls, head, backbone and fin bones are retained. The fish is subsequently brined, may be coloured with permitted colouring materials and smoked in wood smoke.

Boned kippers are made from split herring prepared by the removal of the head, guts and backbone but still retaining a proportion of the chest or barrel bones and fin bones thus leaving a double fillet joined down the dorsal surface. Such boned herring are then brined, may be coloured with permitted colouring material and smoked with wood smoke.

Kipper fillets are prepared from boned kippers by the separation of the two fillets and the removal of the dorsal fin.

## C. Specification of product as delivered

**1. Appearance**

The appearance of the product must be glossy and should not exhibit any raggedness. Kidney blood along the backbone, gut pieces and swim bladder must not be present. **Kipper products may be coloured with permitted colouring materials/must not be artificially coloured.**

**2. Quality of raw material**

At the time of preparation of the kippers, boned kippers or kipper fillets, the freshness of the raw material must meet the following freshness standard:

A score of no higher than 3 in the Torry taste panel system for assessing freshness.

Where thawed frozen fish is used for the production of kippers, boned kippers or kipper fillets it must be free of the following:

1 Rancid flavours.
2 Toughness and dryness resulting from cold-storage deterioration.
3 Yellow discolouration.

**3. Eating quality**

The thawed kippers, boned kippers and kipper fillets must have a pleasant smoky odour and flavour.

The salt content must be between 1.8 and 3.0%. The fish must be free from stale odours and flavours and must show no signs whatsoever of sourness, faecal, or mouldy odours.

**4. Cold-store deterioration**

The thawed product must not be rancid. The Peroxide value must be no greater than 3.

**5. Packaging**

The frozen kippers or kipper products must be wrapped so that they are protected from bacteriological and other contamination and from dehydration under storage and transportation.

Any container used for the delivery of frozen kipper products must be constructed of such material that taint is not imparted to the fish.

**The fish should be packaged for delivery in units of ☐ kg. (☐ lb.).**

**6. Temperature at delivery**

The temperature of the frozen kipper products at the time of delivery must be no higher than minus 15 deg. C. (5 deg. F.).

**Bold type in Section C of this specification indicates that options are to be exercised by purchasers.**

APPENDIX I

# TORRY TASTE PANEL SYSTEM FOR ASSESSING FRESHNESS

**PREPARATION OF SAMPLE:** Fish to be tested must be steamed in a closed dish over boiling water for 35 minutes or if frozen for 18 minutes after thawing. The dish should remain covered and be kept in a water bath at 60 deg. C. during testing.

## SCORING SYSTEM, COD, HADDOCK, WHITING, COLEY, SOUTH ATLANTIC HAKE

| | |
|---|---|
| Fresh, sweet flavours characteristic of the species | 10 |
| Some loss of sweetness | 9 |
| Slight sweetness and loss of the flavour characteristic of the species | 8 |
| Neutral flavour, definite loss of flavour but no "off" flavours | 7 |
| Absolutely no flavour, as if chewing cotton wool | 6 |
| Trace of "off" flavours, some sourness but no bitterness | 5 |
| Some "off" flavours and some bitterness | 4 |
| Strong bitter flavours, rubber-like flavour, slight sulphide-like flavours | 3 |
| Strong bitterness but not nauseating | 1 |
| Strong "off" flavours of sulphides, putrid, tasted with difficulty | 0 |

## SCORING SYSTEM, REDFISH

| | |
|---|---|
| Very sweet or intense sweetness, characteristic flavour | 10 |
| Definitely sweet, nutty (Brazil), meaty | 9 |
| Loss of sweetness, nutty (Brazil) | 8 |
| Very slight sweetness, neutral, milky, chestnut, slight off nut-oil | 7 |
| No sweetness, no sourness, tasteless, cotton wool | 6 |
| "Off" flavours, bad nuts, herring, some sourness, slight rancidity | 5 |
| Strong "off" flavours, strong sourness, some bitterness, rancid oil | 4 |
| Strong bitterness, biting rancidity, sulphide flavours | 3 |
| Nauseating flavours, difficult to hold in the mouth | 2 |
| Nauseating, putrid | 1 |

## SCORING SYSTEM, PLAICE

| | |
|---|---|
| Meaty, shellfishy, earthy | 9 |
| Sweet, and meaty, (or oily fresh herring-like) | 8 |
| Sweet, meaty with curry, peppery or spice flavour | 7 |
| Neutral or bland | 6 |
| Rancid, slightly sour | 5 |
| Sour and bitter | 4 |
| Strong sour and strong bitter, rotten fruit | 3 |
| Nauseating | 1 |

## SCORING SYSTEM, HERRING (FLAVOUR OF BROWN AND WHITE FLESH)

| | |
|---|---|
| Fresh, sweet, seaweedy flavour | 1 |
| Less sweet, seaweedy flavour, plus slight oily flavour | 2 |
| Stronger oily flavour; some stale seaweedy flavour and some "blown oil" flavour | 3 |
| Definite "blown oil" flavour, plus stale, seaweedy flavour | 4 |
| Definite unpleasant "blown oil", "sweaty" or rancid flavour, definitely stale | 5 |
| Repulsive flavour | 6 |

APPENDIX II

# TORRY TASTE PANEL SYSTEM FOR ASSESSING THE COLD-STORAGE DETERIORATION OF COD AND HADDOCK

**PREPARATION OF SAMPLE:** As in appendix 1.

| Cold Store Flavour | Texture | |
|---|---|---|
| | Firmness | Dryness |
| 0 Absent | 0 Very soft | 0 Sloppy, watery |
| 1 Very slight | 1 Softer than normal | 1 Juicy normal (normal fresh unfrozen North Sea cod) |
| 2 Slight | 2 Firm (Normal 2-5 days iced unfrozen fish) | 2 Slightly dry |
| 3 Moderate | 3 Slightly firmer than normal | 3 Dry |
| 4 Strong | 4 Slightly tough | 4 Extremely dry |
| 5 Very strong | 5 Tough | |
| | 6 Extremely tough | |

APPENDIX III

# DETERMINATION OF FLESH CONTENT OF FISH FINGERS

1. Remove the sample fingers from the delivery package whilst these are still frozen hard.

2. Weigh each finger individually whilst still frozen hard.

3. Immerse each finger in a suitable water bath maintained at a temperature between 20 and 30 deg. C. and allow the fingers to remain immersed until the breadcrumb coating becomes soft and can easily be removed from the still frozen fish flesh.

4. Remove the still frozen fingers from the water bath and carefully remove the breadcrumb coating as quickly as possible so that the fish flesh is not allowed to thaw out.

5. Quickly re-immerse the still frozen fingers in the water bath to wash off any remaining breadcrumb, remove from the water bath and dry immediately on absorbent paper.

6. Weigh the debreaded fish fingers whilst still frozen. This is the weight of fish flesh in the fingers.

**Note: This method can also be used for battered and crumbed fish portions.**

APPENDIX IV

# DETERMINING SALT CONTENT

## Modified Volhard Method

Weigh accurately about 10 g. of fish flesh into a 250 ml. conical flask. Add a measured excess volume of standard N/10 silver nitrate solution. (As a rough guide, 10 g. of flesh containing one per cent salt will require about 17 ml. of N/10 silver nitrate solution.) Add 25 ml. of concentrated nitric acid. Boil gently until the flesh dissolves. Filter through a No. 1 filter paper into a 500 ml. conical flask. Wash the precipitate twice with distilled water.

Prepare a ferric indicator by adding a little 6N nitric acid to cold, saturated solution of AR ferric ammonium sulphate in water. Add 1 ml. of the indicator to the filtered solution and titrate to a faint permanent brown colour with standard N/10 potassium thiocyanate.

Subtract the number of ml. of potassium thiocyanate used from the original volume of silver nitrate added to give the volume of silver nitrate used in the estimation. Each ml. of N/10 silver nitrate used indicates the presence in the sample of 0.0058 g. of salt; thus the total weight of salt present can be determined and expressed as a percentage of the sample.

APPENDIX V

# DETERMINING FAT CONTENT: HERRING

Mince and thoroughly mix the sample and weigh accurately about 50 g. into a shallow dish. Where exceptionally high or low fat contents are expected, the weight of sample taken can be varied. Dry the sample in an oven at 103 deg. C., but do not leave in the oven longer than necessary because the fat tends to oxidise and become less soluble. Transfer the dried sample to a Soxhlet extraction thimble, using a small quantity of solvent. Plug the thimble loosely at the top with cotton wool. Place the thimble in a Soxhlet extractor, which is fitted into a weighed 500-ml. round-bottomed flask. Pour solvent into the extractor until it syphons over, and then again until it almost syphons over.

Fit the apparatus on to a vertical condenser and heat it on a water bath. Continue heating for about four hours after the solvent that syphons over appears to be colourless. Lift the flask from the bath and remove the extractor and condenser. Attach a horizontal condenser to the flask and distill off the solvent.

When all the solvent appears to have been removed, transfer the flask to an oven and heat it for about 30 minutes at 100 deg. C. to remove any remaining traces. Cool to room temperature in a dessicator and weigh the flask with its fat content. Heat the flask again in the oven for a further 30 minutes and weigh again to ensure that all the solvent has been driven off. Subtract the known weight of the flask and express the weight of fat as a percentage of the original weight of the sample.

This method gives results accurate enough for most laboratory needs, using ether, petroleum spirit or a mixture of the two as solvent, but a very small amount of fat in fatty fish is usually present as a chemical complex which is not extracted by the Soxhlet method.

APPENDIX VI

# PEROXIDE VALUE: HERRING

**EXTRACTION:** Mince the fish flesh and add approximately 20 per cent by weight anhydrous sodium sulphate and mix well into the flesh. Add more sulphate if the flesh has a sloppy constituency.

Put the mix into a top drive macerator jar and add sufficient 40/60 petroleum ether to cover the flesh + sulphate mix.

Macerate for two minutes and filter into a one litre QQ round bottomed flask.

Remove the petroleum ether on a rotary film evaporator with bath temperature not higher than 40 deg. C.

**DETERMINATION:** Weigh 1 g. oil in a glass jigger and drop into a 250 ml. QQ conical flask containing 20 ml. solvent mixture (2:1 AR glacial acetic acid: AR chloroform). Add six drops saturated potassium iodide solution, stopper and leave in the dark for ten minutes. Add 15 ml. 10 per cent potassium iodide solution, 1 ml. one per cent starch solution and titrate with N/500 sodium thiosulphate. Carry out a blank determination containing no oil.

The peroxide value (PV) is expressed as the number of ml. N/500 Thio. required by 1 g. of oil.

$$\text{PEROXIDE VALUE} \quad \frac{\text{Titre in ml.} - \text{blank in ml.}}{\text{weight of sample in g.}}$$

---

*Note:* **In these methods, where inflammable solvents are used, extreme care must be taken to avoid the risk of fire. No flask containing an appreciable amount of solvent should be put into an oven: an explosion can result. No naked light should be permitted where these solvents are handled.**

## APPENDIX VII

Common Custom Tariff regulation for fish and fish products entering into the European Economic Community.

*SECTION I*

## GENERAL RULES

**A. Rules for the interpretation of the nomenclature of the Common Customs Tariff**

Interpretation of the nomenclature of the Common Customs Tariff shall be governed by the following principles:

1. The titles of Sections, Chapters and sub-Chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative Section or Chapter Notes and, provided such headings or Notes do not otherwise require, according to the following provisions.

2. (a) Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as imported, the incomplete or unfinished article has the essential character of the complete or finished article. It shall also be taken to include a reference to that article complete or finished (or falling to be classified as complete or finished by virtue of this Rule), imported unassembled or disassembled.

   (b) Any reference in a heading to a material or substance shall be taken to include a reference to mixtures or combinations of that material or substance with other materials or substances. Any reference to goods of a given material or substance shall be taken to include a reference to goods consisting wholly or partly of such material or substance. The classification of goods consisting of more than one material or substance shall be according to the principles of Rule 3.

3. When for any reason, goods are, *prima facie*, classifiable under two or more headings, classification shall be effected as follows:

   (a) The heading which provides the most specific description shall be preferred to headings providing a more general description.

   (b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets, which cannot be classified by reference to 3 (a), shall be classified as if they consisted of the material or component which gives them their essential character, in so far as this criterion is applicable.

   (c) When goods cannot be classified by reference to 3 (a) or 3 (b), they shall be classified under the heading which occurs latest among those which equally merit consideration.

4. Goods not falling within any heading of the Tariff shall be classified under the heading appropriate to the goods to which they are most akin.

5. *The above Rules shall also apply* mutatis mutandis *when determining the appropriate subheading within a heading.*

**B. General rules concerning duties**

1. The customs duties applicable to imported goods originating in countries which are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Economic Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties (or duties resulting from conventions) shown in column 4 of the schedule of duties; until such time as a

common trade policy enters into force in this respect, these "conventional" rates shall apply to goods other than those referred to above, imported from any third country.

Where no "conventional" duty is shown against a heading or subheading, or where the rate of the "conventional" duty is higher than that of the autonomous duty shown in column 3, duty shall be chargeable at the rate of the autonomous duty.

2. Paragraph 1 shall not apply where special autonomous customs duties are provided for in respect of goods originating in certain countries or where preferential customs duties are applicable in pursuance of agreements.

3. Paragraphs 1 and 2 shall not preclude the Member States from applying customs duties other than those of the Common Customs Tariff where the application of such other duties is justified by Community law.

4. The duties expressed as percentage rates in columns 3 and 4 are *ad valorem* duties.

5. The letter (L) appearing in column 3 opposite certain headings or subheadings denotes that the goods concerned are subject to levies.

6. The letters "vc" in columns 3 and 4 denote that the goods concerned are chargeable with a "variable component" determined under the regulations relating to trade in certain goods processed from agricultural products.

7. The symbol "ads" or "adf" in column 4 in Chapters 17, 18 and 19 indicates that the maximum rate of duty consists of an *ad valorem* duty plus an additional duty for certain forms of sugar or for flour. This additional duty is fixed in accordance with the rules concerning trade in certain processed agricultural products.

8. The symbol "ads" in column 4 in Chapter 20 indicates that the Community reserves the right to charge, over and above the bound duty, an additional duty on sugar corresponding to the duty payable on imported sugar and applicable to the quantity of various sugars contained in this product in excess of the percentage by weight laid down in Additional Notes 2 and 3 to Chapter 20, or, in respect of products falling within headings Nos 20.03, 20.04 and 20.05 which exceed 13 % by weight.

9. In heading No 20.06, column 4, the symbol "2 ads" indicates that the applicable rate of the additional duty on sugar is fixed at a standard rate of 2 % of the customs value of the goods.

C. General rules applicable both to nomenclature and to duties

1. Unless provided otherwise, the provisions relating to value for customs purposes shall be applied to determine, in addition to the value for the assessment of *ad valorem* customs duties, the values by reference to which the scope of certain headings or subheadings is defined.

2. The dutiable weight, in the case of goods chargeable by weight, and the weights by reference to which the scope of certain headings or subheadings is defined, shall be taken to be:

   (a) in the case of a reference to "gross weight", the aggregate weight of the goods and of all packings thereof;

   (b) in the case of a reference to "net weight" or simply to "weight" without qualification, the weight of the goods themselves without packing of any kind.

For the purposes of paragraphs (a) and (b) above, "packing" means any external or internal containers, holders, wrappings or supports, other than transport devices (e.g. transport containers), tarpaulins, tackle or ancillary transport equipment.

3. Pursuant to the first subparagraph of Article 2 (2) of Regulation (EEC) No 2779/78, the value in national currencies of the European unit of account (EUA) by reference to which certain specific customs duties are expressed, or which is used as a criterion limiting the scope of certain subheadings, shall be the following:

| | | |
|---|---|---|
| 1 EUA | 40·2181 | Belgian francs/Luxembourg francs, |
| | 2·48536 | German marks, |
| | 2·76031 | Dutch guilders, |
| | 0·652555 | pound sterling, |
| | 7·27903 | Danish kroner, |
| | 5·54164 | French francs, |
| | 1144·43 | Italian lira, |
| | 0·669120 | Irish pound. |

## *SECTION II*

## SPECIAL PROVISIONS

A. **Goods for certain categories of ships, boats and other vessels**

Customs duties are suspended in respect of goods intended for incorporation in the ships, boats or other vessels listed in the following schedule, for the purposes of their construction, repair, maintenance or conversion, and in respect of goods intended for fitting to or equipping such ships, boats or other vessels.

| Heading number | Description |
|---|---|
| 89.01 | Ships, boats and other vessels not falling within headings Nos 89.02 to 89.05: |
| | A. Warships |
| | B. Other: |
| | I. Sea-going vessels |
| 89.02 | Vessels specially designed for towing (tugs) or pushing other vessels: |
| | A. Tugs |
| | B. Pusher craft: |
| | I. Sea-going |
| 89.03 | Light-vessels, fire-floats, dredgers of all kinds, floating cranes, and other vessels the navigability of which is subsidiary to their main functions; floating docks; floating or submersible drilling or production platforms: |
| | A. Sea-going |

The suspensions shall be subject to such conditions as may be determined by the competent authorities with a view to customs control of the use of such goods.

CHAPTER 3

FISH, CRUSTACEANS AND MOLLUSCS

Note

This Chapter does not cover:

a) Marine mammals (heading No 01.06) or meat thereof (heading No 02.04 or 02.06);

b) Fish (including livers and roes thereof), crustaceans and molluscs, dead, unfit or unsuitable for human consumption by reason of either their species or their condition (Chapter 5); or

c) Caviar or caviar substitutes (heading No 16.04).

| Heading number | Description | Rate of duties | |
|---|---|---|---|
| | | Autonomous or basic (%) | Conventional (%) |
| 1 | 2 | 3 | 4 |
| 03.01 | **Fish, fresh (live or dead), chilled or frozen:** | | |
| | A. Freshwater fish: | | |
| | I. Trout and other salmonidae: | | |
| | a) Trout | 16 | 12 |
| | b) Salmon | 16 | 3-8 |
| | c) Lake white fish | Free | 8 |
| | d) Other | Free | 10 |
| | II. Eels | 10 | 4-8 |
| | III. Carp | 10 (a) | 5 (a) |
| | IV. Other | Free | (b) |
| | B. Saltwater fish | | |
| | I. Whole, headless or in pieces | | |
| | a) Herring: | | |
| | 1. From 15 February to 15 June | | |
| | aa) Fresh or chilled | Free | Free |
| | bb) Frozen | Free | Free |
| | 2. From 16 June to 14 February: | | |
| | aa) Fresh or chilled | 20 (a) (c) | 15 (a) (d) |
| | bb) Frozen | 20 (a) (c) | 15 (a) (d) |
| | b) Sprats: | | |
| | 1. From 15 February to 15 June | Free | Free |
| | 2. From 16 June to 14 February | 20 (c) | 13 |

(a) Subject to compliance with the reference price. A countervailing tax is provided for in the case of non-compliance with the reference price.
(b) See Annex.
(c) Total suspension for an indefinite period.
(d) Duty suspension within the limits of an annual tariff quota of 34 000 tonnes to be granted by the competent authorities and subject to compliance with the reference price.

| Heading number | [illegible] | [illegible] duty | |
|---|---|---|---|
| | | Autonomous or basic rate | Conventional |
| 1 | 2 | 3 | 4 |
| 03.01 *cont'd* | B. [illegible] Tunny: | | |
| | 1. For the industrial manufacture of products falling within heading No 16.04 A: | | |
| | aa) Whole: | | |
| | 11. Yellow-finned tunny: | | |
| | aaa) Weighing not more than 10 kg each | 25 (b) (c) | 22 (c) (d) |
| | bbb) Other | 25 (b) (c) | 22 (c) (d) |
| | 22. Long-finned tunny | 25 (b) (c) | 22 (c) (d) |
| | 33. Other | 25 (b) (c) | 22 (c) (d) |
| | bb) Gilled and gutted: | | |
| | 11. Yellow-finned tunny: | | |
| | aaa) Weighing not more than 10 kg each | 25 (b) (c) | 22 (c) (d) |
| | bbb) Other | 25 (b) (c) | 22 (c) (d) |
| | 22. Long-finned tunny | 25 (b) (c) | 22 (c) (d) |
| | 33. Other | 25 (b) (c) | 22 (c) (d) |
| | cc) Other (for example, "heads off"): | | |
| | 11. Yellow-finned tunny: | | |
| | aaa) Weighing not more than 10 kg each | 25 (b) (c) | 22 (c) (d)* |
| | bbb) Other | 25 (b) (c) | 22 (c) (d) |
| | 22. Long-finned tunny | 25 (b) (c) | 22 (c) (d) |
| | 33. Other | 25 (b) (c) | 22 (c) (d) |
| | 2. Other | 25 (c) | 22 (c) (d) |
| | d) Sardines (Clupea pilchardus Walbaum): | | |
| | 1. Fresh or chilled | 25 | 25 |
| | 2. Frozen | 25 | 25 |
| | e) Sharks | 15 | 8 (e) |
| | f) Redfish (Sebastes marinus): | | |
| | 1. Fresh or chilled | 15 | 9 |
| | 2. Frozen | 15 | 9 |
| | g) Halibut (Hippoglossus vulgaris, Hippoglossus reinhardtius) | 15 | 9 |
| | h) Cod (Gadus morrhua or Gadus callarias): | | |
| | 1. Fresh or chilled | 15 | 14·6 |
| | 2. Frozen | 15 | 14·6 |
| | ij) Coalfish (Pollachius virens or Gadus virens): | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |

(a) Entry under this subheading is subject to conditions to be determined by the competent authorities.

(b) Total suspension for an indefinite period.

(c) Subject to compliance with the reference price. A countervailing tax is provided for in the case of non-compliance with the reference price.

(d) Duty exemption in respect of tunny intended for the canning industry, within the limits of an annual tariff quota of 50 000 tonnes to be granted by the competent authorities and subject to compliance with the reference price. Qualifications for this quota is governed by conditions to be determined by the competent authorities.

(e) Duty rate reduced to 6 % in respect of inland dogfish (Squalus acanthias) within the limits of an annual tariff quota of 5 000 tonnes to be granted by the competent authorities.

| Heading number | Description | Autonomous rate of duty (%) | Conventional rate (%) |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 03.01 (cont'd) | B. I. k) Haddock: | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |
| | l) Whiting (Merlangus merlangus): | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |
| | m) Mackerel: | | |
| | 1. From 15 February to 15 June: | | |
| | aa. Fresh or chilled | Free | Free |
| | bb) Frozen | Free | Free |
| | 2. From 16 June to 14 February: | | |
| | aa) Fresh or chilled | 20 | 20 |
| | bb) Frozen | 20 | 20 |
| | n) Anchovies (Engraulis spp): | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |
| | o) Plaice: | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |
| | p) Sea-bream of the species Dentex dentex and Pagellus: | | |
| | 1. Fresh or chilled | 15 | 15 |
| | 2. Frozen | 15 | 15 |
| | q) Other | 15 | 15 (a) |
| | II. Fillets: | | |
| | a) Fresh or chilled | 18 | 18 |
| | b) Frozen: | | |
| | 1. Of cod (Gadus morrhua or Gadus callarias) | 18 | 15 (b) |
| | 2. Of coalfish (Pollachius virens or Gadus virens) | 18 | 15 |
| | 3. Of haddock | 18 | 15 |
| | 4. Of redfish (Sebastes marinus) | 18 | 14·6 |
| | 5. Of ronny | 18 | 18 |
| | 6. Of mackerel | 18 | 15 |
| | 7. Other | 18 | 15 |
| | C. Livers and roes | 14 | 10 |
| 03.02 | Fish, dried, salted or in brine; smoked fish, whether or not cooked before or during the smoking process: | | |
| | A. Dried, salted or in brine: | | |
| | I. Whole, headless or in pieces: | | |
| | a) Herring | 12 | 12 |
| | b) Cod | 13 (c) | 13 (d) |

(a) Duty rate reduced to 8% for silver hake (Merluccius bilinearis) within the limits of an annual tariff quota of 2 000 tonnes to be granted by the competent authorities.
(b) Duty rate reduced to 8% within the limits of an annual tariff quota of 10 000 tonnes to be granted by the competent authorities.
(c) Tariff suspension for an indefinite period.
(d) Duty exemption within the limits of an annual tariff quota of 25 000 tonnes to be granted by the competent authorities.

| Heading number | Description | Rate of duty: Autonomous (or base) (1) | Rate of duty: Conventional |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 03.02 (cont'd) | A. I. c) Anchovies (Engraulis spp) | 15 | 10 |
| | d) Common halibut (Hippoglossus vulgaris) | 15 | — |
| | e) Salmon, salted or in brine | 15 | 11 |
| | f) Other | 15 | 12 |
| | II. Fillets: | | |
| | a) Of cod | 20 (a) | 20 |
| | b) Of salmon, salted or in brine | 18 | 15 |
| | c) Of lesser or Greenland halibut (Hippoglossus reinhardtius), salted or in brine | 18 | 15 |
| | d) Other | 18 | 16 |
| | B. Smoked, whether or not cooked before or during the smoking process: | | |
| | I. Herring | 16 | 10 |
| | II. Salmon | 16 | 13 |
| | III. Lesser or Greenland halibut (Hippoglossus reinhardtius) | 16 | 15 |
| | IV. Common halibut (Hippoglossus vulgaris) | 16 | 16 |
| | V. Other | 16 | 14 |
| | C. Livers and roes | 15 | 11 |
| | D. Fish meal | 15 | 13 |
| 03.03 | Crustaceans and molluscs, whether in shell or not, fresh (live or dead), chilled, frozen, salted, in brine or dried; crustaceans, in shell, simply boiled in water: | | |
| | A. Crustaceans | | |
| | I. Crawfish of the genera Palinurus, Panulirus and Jasus | 25 | (b) |
| | II. Lobsters (Homarus spp): | | |
| | a) Live | 25 | 9-8 |
| | b) Other: | | |
| | 1. Whole | 25 | 12-4 |
| | 2. Other: | | |
| | aa) Frozen | 25 | 19-5 |
| | bb) Other | 25 | 20 |
| | III. Crabs and freshwater crayfish: | | |
| | a) Crabs of the species Paralithodes camchaticus, Chionoecetes spp and Callinectes sapidus | 18 | 14-1 |
| | b) Other | 18 | 15 |
| | IV. Shrimps and prawns: | | |
| | a) Prawns (Pandalidae spp) | 18 | 12 |
| | b) Shrimps of the genus "Crangon" spp: | | |
| | 1. Fresh, chilled or simply boiled in water | 18 | 18 |
| | 2. Other | 18 | 18 |
| | c) Other | 18 | 18 |
| | V. Other (for example, Norway lobsters) | 18 | 12 |

(a) Total suspension for an overlapping period.
(b) See Annex.

| Heading number | Description | Rate of duty | |
|---|---|---|---|
| | | Autonomous or basic (1) | Conventional |
| | 2 | 3 | 4 |
| 03.03 (cont'd) | B. Molluscs: | | |
| | I. Oysters: | | |
| | a) European flat oysters weighing one more than 40 g each | Free | Free |
| | b) Other | 18 | 18 |
| | II. Mussels | 10 | 10 |
| | III. Snails, other than sea snails | 6 | Free |
| | IV. Other: | | |
| | A. Frozen: | | |
| | 1. Squid: | | |
| | aa) Ommastrephes sagittatus and Loligo spp | 8 | 6 |
| | bb) Other | 9 | 9 |
| | 2. Cuttle-fish of the species Sepia officinalis, Rossia macrosoma and Sepiola rondeleti | 9 | 8 |
| | 3. Octopus | 8 | 8 |
| | 4. Other | 8 | 9 |
| | B. Other: | | |
| | 1. Squid (Ommastrephes sagittatus and Loligo spp) | 8 | 6 |
| | 2. Other | 8 | 8 |

## SECTION IV

## PREPARED FOODSTUFFS; BEVERAGES, SPIRITS AND VINEGAR; TOBACCO

### CHAPTER 16

### PREPARATIONS OF MEAT, OF FISH, OF CRUSTACEANS OR MOLLUSCS

Note

This Chapter does not cover meat, meat offal, fish, crustaceans or molluscs, prepared or preserved by the processes specified in Chapters 2 and 3.

Additional Note

*For the purposes of subheadings 16.02 B I a) 1, 16.02 B III a) 1 and B III b) 1 aa), the term "uncooked" shall apply to products which have not been subjected to any heat-treatment or which have been subjected to a heat-treatment insufficient to ensure the coagulation of meat proteins in the whole of the product and which therefore, in the case of subheadings 16.02 B III a) 1 and B III b) 1 aa), show traces of a pinkish liquid on the cut surface when the product is cut along a line passing through its thickest part.*

| Heading number | Description | Rate of duty | |
|---|---|---|---|
| | | Autonomous % or levy (L) | Conventional % |
| 1 | 2 | 3 | 4 |
| 16.01 | **Sausages and the like, of meat, meat offal or animal blood:** | | |
| | A. Liver sausages | 24 (L) | 24 |
| | B Other (a): | | |
| | I. Sausages, dry or for spreading, uncooked | 21 (L) | — |
| | II. Other | 21 (L) | — |
| 16.02 | **Other prepared or preserved meat or meat offal:** | | |
| | A. Liver: | | |
| | I. Goose or duck liver | 20 | 16 |
| | II. Other | 25 (L) | 25 |
| | B. Other: | | |
| | I. Poultry meat or offal: | | |
| | a) Containing 57% or more by weight of poultry meat (b): | | |
| | 1. Containing uncooked meat or offal; mixtures of cooked meat or offal and uncooked meat or offal: | | |
| | aa) Containing only turkey meat | 21 (L) | 17 |
| | bb) Other | 21 (L) | — |
| | 2. Other | 21 (L) | 17 |
| | b) Containing 25% or more but less than 57% by weight of poultry meat (b) | 21 (L) | 17 |
| | c) Other | 21 (L) | 17 |
| | II. Game or rabbit meat or offal | 21 | 17 |

(a) The levy applicable to sausages imported in containers which also contain preservative liquid is calculated on the net weight, i.e. after deduction of the weight of the liquid.
(b) For the purpose of determining the percentage of poultry meat, the weight of any bones is to be disregarded.

| Heading number | Description | Rate of duty | |
|---|---|---|---|
| | | Autonomous or levy (L) | Conventional |
| 1 | 2 | 3 | 4 |
| 16.02 (cont'd) | B. III. Other: | | |
| | a) Containing meat or offal of domestic swine : | | |
| | 1. Containing bovine meat, uncooked | 26 (L) | — |
| | 2. Other, containing, by weight: | | |
| | aa) 80 % or more of meat or offal, of any kind, including fats of any kind or origin : | | |
| | 11. Hams, fillets and loins ; pieces thereof | 26 (L) | — |
| | 22. Shoulders and pieces thereof | 26 (L) | — |
| | 33. Other | 26 (L) | — |
| | bb) 40 % or more but less than 80 % of meat or offal, of any kind, including fats of any kind or origin | 26 (L) | — |
| | cc) Less than 40 % of meat or offal, of any kind, including fats of any kind or origin | 26 (L) | — |
| | b) Other: | | |
| | 1. Containing bovine meat or offal: | | |
| | aa) Uncooked; mixtures of cooked meat or offal and uncooked meat or offal | 20 + (L) (*) | — |
| | bb) Other | 26 | 26 |
| | 2. Other: | | |
| | aa) Ovine meat or offal | 26 | 20 |
| | bb) Other | 26 | 26 |
| 16.03 | **Meat extracts, meat juices and fish extracts, in immediate packings of a net capacity of:** | | |
| | A. 20 kg or more | Free | Free |
| | B. More than 1 kg but less than 20 kg | 9 | 6 |
| | C. 1 kg or less | 24 | 20 |
| 16.04 | **Prepared or preserved fish, including caviar and caviar substitutes:** | | |
| | A. Caviar and caviar substitutes: | | |
| | I. Caviar (sturgeon roe) | 30 | 30 |
| | II. Other | 30 | 30 |
| | B. Salmonidae: | | |
| | I. Salmon | 20 | 6·8 |
| | II. Other | 20 | 7 |
| | C. Herring: | | |
| | I. Fillets, raw, coated with batter or breadcrumbs, deep frozen | 18 | 15 |
| | II. Other | 23 | 20 |
| | D. Sardines | 25 | 25 |
| | E. Tunny | 25 | 24 |
| | F. Bonito (Sarda spp), mackerel and anchovies | 25 | (a) |

(a) See Annex.

(*) In certain circumstances a levy is applicable in addition to the customs duty.

| Heading number | Description | Rate of duty | |
|---|---|---|---|
| | | Autonomous or bound (1) | Conventional % |
| 1 | 2 | 3 | 4 |
| 16.04 (cont'd) | G. Other: | | |
| | I. Fillets, raw, coated with batter or breadcrumbs, deep frozen | 18 | 15 |
| | II. Other | 25 | 20 |
| 16.05 | Crustaceans and molluscs, prepared or preserved: | | |
| | A. Crabs | 20 | 16 |
| | B. Other | 20 | 20 |

# APPENDIX VIII

U.K. Retail Fish Prices and Reference Prices for Fish in 1980.

# RETAIL FISH PRICES

Average national retail prices for Wednesday, March 5, 1980 as supplied by the National Federation of Fishmongers Limited.

| | Average | West | Central London | Derby | South Wales | South Midlands | Greater London | Bolton | Berwick-on-Tweed |
|---|---|---|---|---|---|---|---|---|---|
| Cod Fillet | 100 dn 5p | 89 | 110 | 100 | 85 | 100 | 96 | 120 | 100 |
| Haddock Fillet | 118 up 3p | 110 | 150 | 120 | 108 | 120 | 96 | 120 | 120 |
| Coley Fillet | 64 dn 3p | 68 | 68 | 64 | 55 | 70 | 60 | – | – |
| Plaice Fillet | 113 dn 2p | 110 | 150 | 120 | 100 | 120 | 90 | 140 | 100 |
| Smoked Cod Fillet | 123 up 4p | 99 | 150 | 126 | 120 | 130 | 120 | 130 | 110 |
| Mackerel | 33 dn 3p | 24 | 38 | 38 | 30 | 36 | 32 | – | – |
| Sprats | 31 dn 5p | 28 | 30 | – | – | 36 | 28 | – | – |
| Herring | 63 n/c | 68 | 80 | 58 | 48 | 60 | 54 | 75 | – |
| Kippers | 88 dn 2p | 88/98 | 110 | 88 | 88 | 90 | 78 | – | 84 |
| Skate | 1. . dn 7p | – | 95 | 100 | 120 | 115 | 100 | 75/80 | – |
| Dogfish | 98 up 7p | 78 | 120 | – | 86 | 110 | 96 | – | – |
| Dabs | 44 dn 1p | 40 | 48 | – | 38 | 50 | – | – | – |
| Whiting | 45 up 3p | – | 48 | 50 | 35 | 46 | 46 | – | – |
| Small Whole Plaice | 50 dn 3p | 48 | 48 | 50 | 33 | 64 | 54 | – | – |
| Skd Wle Mackerel | 71 dn 5p | 78 | 78 | 58 | – | – | 68 | – | – |
| 4lb Fresh Chicken | 53p lb dn 3p | – | 48 | 54 | – | 50 | 44 | 68 | – |
| Rainbow Trout 8/12oz ungutted | 109 dn 1p | 110 | 98 | 120 | 120 | 120 | 96 | 100 | – |

MINISTRY OF AGRICULTURE, FISHERIES & FOOD
WHITEHALL PLACE, LONDON, S.W.1.

TRADE PRESS NOTICE

PRESS ENQUIRIES 01-217 6342/6212/3874/3918: AFTER HOURS 01-217 6200
TRADE ENQUIRIES:

December 21, 1979

## REFERENCE PRICES FOR FISH 1980

EEC reference prices for fish effective from 1 January 1980 have now been agreed. A Regulation will be published shortly in the Official Journal of the European Communities. The sterling equivalents (based on 1.61641 EUA = £1) of the reference prices are as follows:

### Fresh and Chilled Fish

| | £ per tonne |
|---|---|
| Cod | 318 |
| Haddock | 230 |
| Plaice (1.1.80 to 31.3.80) | 287 |
| Plaice (1.4.80 to 31.12.80) | 314 |
| Saithe | 200 |
| Hake | 666 |
| Whiting | 217 |
| Redfish | 315 |
| Herring | 140 |
| Mackerel | 119 |
| Atlantic Sardines | 228 |
| Mediterranean Sardines | 165 |
| Anchovies | 212 |
| Shrimps of the genus Crangon spp. | 463 |

### Frozen Fish

Cod:-

(a) Whole, headless or in pieces:-

| | |
|---|---|
| with or without head | 334 |
| *others | 514 |

(b) Fillets:

| | |
|---|---|
| industrial blocks with bones ("Standard") | 860 |
| */*industrial blocks boneless | 988 |
| */*individual fillets, with skin | 905 |
| */*individual fillets, skinless | 1012 |

| | |
|---|---|
| Haddock:- | |
| (a) Whole, headless or in pieces:- | |
| with or without head | 254 |
| "others | 391 |
| (b) Fillets:- | |
| industrial blocks with bones ("Standard") | 689 |
| ø"industrial blocks boneless | 1029 |
| ø"individual fillets with skin | 725 |
| ø"individual fillets skinless | 1029 |
| Saithe:- | |
| (a) Whole, headless or in pieces:- | |
| with or without head | 217 |
| "others | 334 |
| (b) Fillets:- | |
| with bones ("Standard") | 482 |
| "boneless | 554 |
| Hake:- | |
| (a) Whole, headless or in pieces:- | |
| with or without head | 292 |
| "others | 449 |
| (b) Fillets:- | |
| with bones ("Standard") | 506 |
| "boneless | 582 |
| Redfish:- | |
| (a) Whole, headless or in pieces:- | |
| with or without head | 342 |
| "others | 525 |
| (b) Fillets:- | |
| with bones ("Standard") | 711 |
| "boneless | 837 |

| | |
|---|---|
| Mackerel:- | |
| (a) Whole, headless or in pieces:- | |
| with head | 155 |
| *headless | 163 |
| *sides (product cut in the longitudinal) plane and presented as butterflies) | 282 |
| (b) Fillets:- | 317 |
| Sea Bream of the species Dentex dentex and Pagellus:- | |
| Whole, headless or in pieces | 499 |
| Squid:- | |
| Loligo spp | 973 |
| Ommastrephes sagittatus, Todarodes sagittatus, Illex spp. | 493 |

* The rates for these products are based on the quality conversion factors set out in Commission Regulation No 2953/77.

ø "Industrial blocks" are laminated blocks
"Individual fillets" include interleaved blocks

The current ban on imports of frozen hake below the reference price is to be lifted from 1.1.80; nevertheless if any of the products listed above enter the Community at less than the appropriate reference prices the EEC Commission may take immediate action under Regulation 100/76 to regulate imports of the products concerned.

NOTE FOR EDITORS

The reference prices for 1979 were listed in Trade Press Notice No. 67 dated 18 December 1978. The ban on imports of frozen hake was announced in Trade Press Notice 29 of 30 July 1979.

# APPENDIX IX

Commercial publications recommended by Mr. Eric Elston.

Readers can obtain fruther information on the following trade journals by writing:

1. Erkins Seafood Letter: The Erkins Seafood Letter
   P.O. Box 108
   Bliss, Idaho 83314

2. Eurofish Report: Agar Europe (London) Ltd.
   Agroup House
   16 Lonsdale Gardens
   Tunbridge Wells, Kent TN1 1PO
   England

3. European Supplies Bulletin: European Supplies Bulletin
   Fishery Economics Research Unit
   White Fish Authority
   Sea Fisheries House
   10 Young Street
   Edinburgh EH2 4JQ

R.A.E

Issue 1-80

# the Erkins Seafood Letter

P.O. Box 108 • Bliss, Idaho 83314 • Phone 208/352-4460

with INTERNATIONAL NEWS

CONFIDENTIAL MARKET COMMENT AND OPINION

FEBRUARY 22, 1980

EUROPEAN FISHERIES OUTLOOK

CONSENSUS Seafood business throughout Europe is generally on slow side....sales are sluggish for both Fresh and Frozen....inventory carry-over following Christmas season is heavy. While January is normally a poor sales month....slowness is greater than expected. Due to high interest rates in U.K. (20-21% for most borrowers), most Seafood handlers there do not want to inventory Frozen Fish and Shellfish or buy them to freeze. Result is hand-to-mouth buying....a generally falling price market for most Seafoods. German market is suffering from inconsistent supplies of Fresh Fish: result- marketing difficulties. Fishing on other hand has been better than expected for most European boats as weather has been fairly good. As normal for this time of year, Retail (Foodmarkets) have enjoyed better sales than have Catering (Foodservice). Near term outlook is for soft Seafood markets....with hoped for pick up in business in May or June many feel.

BLOCK MARKET Cod Blocks now being offered to European market are exceeding demand particularly in U.K. where buyers are being pressured to take supplies by producers in Norway, Iceland, Denmark, Canada, and Poland. Prices range 5¢ to 15¢ (depending on quality) over U.S.A. Boston prices according to buyers. For top-of-the-line Breaded and Battered packs, U.K. and German buyers are demanding top quality....complain that Canadian Cod Blocks are not measuring up to buying standards....too much water in Block pack....must improve quality if future markets are to be built! Due to increase in supply of European caught Cod, there is no near term price advance expected. South American Hake (Whiting) Blocks are finding market dull....prices on downside with this condition to continue for near term ....reason is poor quality of many packs plus strong preference for Cod by many consumers. Atlantic Pollock catch will be well under way by April/May....outlook is for good season ....prices running about 7¢-8¢ over U.S.A. Boston prices....fair amount of early catch now going to France....also to Germany as Skin-on Blocks to be Smoked, Dyed, and Sliced as substitute for Smoked Salmon. Also Icelandic Pollock sales are good in Europe. Other Blocks in ample supply for markets.

FILLET MARKET Demand for most large Frozen Fillets is good....seems to be heavy carry over of smaller size Fillets. Cod is in more than needed supply while much production of Codling has gone into Fish Meal in U.K., due to weak market conditions. Imports from Canada are under-cutting Norway and Iceland prices although buyers state poorer, inconsistent quality of Canadian pack ends up filling cheaper market place. Canada now enjoys easier EEC import duties for some 8,300 tonnes. Heavy imports of Fresh Cod into U.K. is causing depressed prices for both Fresh/Frozen market....U.K. fishermen complain about import competition. Plaice in tight supply with firm prices as Holland keeps fishing fleets under rotating 2-week closures....plus Plaice are spawning which makes thin Fillets. Haddock in good U.K. supply....finding markets unable to take production ....keeps prices on downside. Turbot supplies are good. Complaints are being heard that some Dutch producers of Turbot/Dover Sole are glazing too much....thereby underselling market to unsuspecting buyers in Sweden and Switzerland. European Whiting industry is hoping to obtain automatic machines to produce Fillets and Blocks.

OTHER FISH Salt Fish, Stockfish both finding strong demand particularly in Nigeria with prices up 10-15% for Stockfish....Mediterranean sales of Salt Fish good. Demand for Salt and Stockfish will give strong competition to packers of Frozen Cod as each tries for his share of catch quotas. Mackerel landings are not up to expectations with many areas closing. Horse Mackerel market in West Africa is on downturn where Mackerel prices are slipping as market is loaded....no promotional effort being made to move product other than by price cuts. Herring catches around U.K. are almost non-existent....good catches by Danish boats with sizes in medium range delivered Fresh to markets....prices normal ....below Canadian quotes. European market wants large Herring while US/Canada suppliers

AGRA EUROPE

EUROFISH REPORT

a fortnightly review

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No. 69, JANUARY 9, 1980 ISSN 0140 - 8720

USA ACTS AGAINST SOVIET TRAWLERS (BB/1)

President Carter includes fishing rights in retaliatory measures against the USSR for its move into Afghanistan. Canadians also considering action but no news of any moves by the UK.

ENLARGEMENT PROBLEMS EXAGGERATED? (BB/2)

Differing views on the problems which will be added to those already facing a Common Fisheries Policy when Greece, Portugal and, especially, Spain join the Community expressed at a London conference.

FRENCH FISHERMEN CONCERNED ABOUT SPANISH ENTRY (FS/1)

No doubt about what French fishermen think about the entry of Spain but Spanish industry is optimistic.

UK RESTRICTS MACKEREL FISHING (FS/6)

An attempt to cut down overfishing in the western fishery to conserve stocks is to be made through issue of restrictive licences.

OVER-THE-SIDE SALES CRITICISED BY CANADIANS (SP/5)

Over-the-side sales of mackerel and squid to Joint Trawlers Limited show overall losses to the domestic fishing industry claims the Fisheries Council of Canada.

ONLY A SMALL INCREASE IN EEC REFERENCE PRICES FOR 1980 (SP/6)

Increases of 1 - 6 per cent for most products with prices unchanged for herring, Mediterranean sardine and mackerel.

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January
1980

## APPENDIX X

Weekly European Fish Prices - a telephone service offered by the Market News Branch of the National Marine Fisheries Service, U.S. Department of Commerce.

## WEEKLY EUROPEAN FISH PRICES

A new telephone message center providing weekly European frozen fish prices and market information has been established. By telephoning 617-283-5883 you will hear a weekly report describing prices and market conditions for seven species of frozen fish: squid, whiting (silver hake), dogfish, skate, monkfish, mackerel, and herring.

The weekly report will be updated each Thursday with information received from the Paris office of Development Planning and Research Associates, Inc. It has been contracted by the New England Fisheries Development Program to provide this current information from five Western European countries -- United Kingdom, France, West Germany, Italy and Spain

The primary objective of this new service is to aid in the development of an increased export market for species not fully utilized and most available to the New England fishing industry.

The Gloucester office of the Market News Branch of the National Marine Fisheries Service, U.S. Department of Commerce will be servicing the new telephone message center. After six months the European price reporting service will be reevaluated and your input will be needed. If you have any suggestions or questions please contact the Office of the Regional Director by telephoning 617-281-3600 (Extension 225, Mr. Hall) or by writing to:

U S. Department of Commerce
National Marine Fisheries Service
P.O. Box 1109
Gloucester, MA 01930